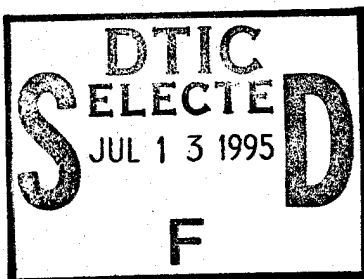


**PERSONAL
EXPERIENCE
MONOGRAPH**

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**OPERATION DESERT SHIELD
AND DESERT STORM**

BY

LIEUTENANT COLONEL ANTHONY R. JONES
United States Army

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OPERATION DESERT SHIELD AND DESERT STORM
A PERSONAL MONOGRAPH

by

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INTRODUCTION

"So what did you do in the War, Daddy?"

As a Battalion Commander of an AH-64 Attack Helicopter Battalion during Operations Desert Shield and Desert Storm, my experiences were many, my memories everlasting.

Rather than enumerate a chronology of events, I will give the reader an insight into the views of a Battalion Commander whose unit was detached from its normal organization in Germany, deployed to Saudi Arabia with Initial United States (U.S.) Forces, and attached to the CONUS-based XVIII Airborne Corps for the duration of Desert Shield and Desert Storm. The uniqueness of this experience lies in the cross-attachment of a new Apache Attack Helicopter Battalion from a heavy division organization supporting European NATO Forces, to a Corps Aviation Brigade, then further attaching this Brigade to a U.S. Corps under the operational control of the Commander-in-Chief, U.S. Central Command. The opportunity to demonstrate versatility, flexibility, and mission focus was clearly present.

In order not to overlook the historical data available which details the experiences of this great unit, at Annex A is an operational summary of the 3d Battalion, 227th

Aviation Regiment experiences, from alert notification to final return of forces to Germany. Annex B is an after action summary prepared by the 12th Aviation Brigade, a V Corps unit, and the immediate higher headquarters for the 3d Battalion during this operation. Annex C contains my impressions of the first 90 days of deployment and two articles written for the soldiers back in Germany, and at Annex D are quick reference maps of Saudi Arabia, Iraq, and the Persian Gulf Region.

To retain a personal perspective throughout this paper, I will address the many topics considered pertinent at the Battalion organization level. I will restrict my comments to those impressions that are foremost in my mind when reflecting on specific subject areas. Although my perspectives may often reinforce preconceived notions, I hope that future commanders, who lack experience going into combat or who share my opinions may, remember these thoughts to better prepare themselves and take care of our soldiers.

"THE SUMMER OF 1990"

Commanders often accept risk in level of performance while being reasonably certain of mission accomplishment. The unit was formally activated as the 3d Battalion, 227th Aviation Regiment at Fort Hood, Texas, on 16 April 1989, and subsequently deployed to Hanau, Germany, in September 1989.

After a year of intense training with the 3d Armor Division, many leaders and staff officers within the Battalion warranted change of position, responsibilities and mission focus. From the early spring through July 1990, I had just rotated all Company Commanders, all primary staff officers, to include the Operations Officer (S-3), and my Executive Officer. The hardened experience and cohesion of training in the intense Apache Training Brigade program of instruction, weathering the windstorms of Fort Hood and Germany, and successfully completing the first year of training with the 3d Armor Division had given leaders and soldiers alike an aura of confidence--ready to defend NATO and tackle any adversary. The training program for the next year in Germany and a new Brigade Commander favored the actions I had just taken to provide progressive opportunities for junior officers and further challenge those I had mentored for the past eighteen months. Unbeknownst to me, the next year would provide the Battalion a new environment, a new higher headquarters, a third continent of operation, and a transition from peacetime training to war. Enormous challenges lay ahead, many of which career military officers and attack helicopter pilots often dream.

PRE-COMBAT PREPARATION

War and peace are similarly comprised of emotional peaks and valleys, otherwise described as relentless periods of boredom surrounded by sheer moments of panic, fright and life-threatening uncertainty. The first emotional peak realized by the soldiers and chain of command, was elation that the unit had been selected to go first to the combat zone. In addition, a certain amount of pride was sensed in being potentially the first 3d Armor Division soldiers to fight for our nation since World War II (WWII)--basically 45 years hence. This elation subsided with the beginning of hard work for deployment, the anxiety of future actions, and the demands of impending family separation. It was also during the medical phases of preparation for combat that the Battalion Command Sergeant Major was declared non-deployable--thus eliminating another source of unit leadership, cohesion, and combat experience. As the Commander, I knew that the most important thing for me to do was keep my composure, set the example and ensure mission focus. The first phase of our mission was deployment--a task which would include rail, air and sea movement. Little time was available for unit training. My thoughts were often preoccupied with future situations for which I may not have trained the soldiers, mentored the leaders or adequately prepared the unit mentally or physically. Time would tell.

ORGANIZATION

I suddenly found myself with an organization for deployment almost twice the size of my battalion. My newly assigned Brigade was the first to deploy from Europe, and at that time, thought to be one of the few U.S. units from NATO to be deployed. Therefore, a stand-alone, flexible capability was assured. A Stinger-equipped Air Defense Platoon, Physician Assistant, Chaplain and Chaplain's Assistant, maintenance support personnel, supply and transport personnel, and additional flight crews were examples of attachments received. Functionally and personnel strengthwise, the Battalion was independent, self-sustaining and ready for our next contingency. Although these attachments were welcomed, I sensed the inadequacies in force structure of the Battalion and the Corps Aviation Brigade, when required to operate independently, across unit and organizational boundaries.

TRAINING AND READINESS

The successes of all Apache Battalions in Desert Shield and Storm began with the Unit Training Program conducted at the Apache Training Brigade, Fort Hood, Texas. This experience and the mentorship received from combat veterans such as Colonel Bob Hurley, bonded battalions into cohesive fighting units--albeit some more than others. The 3d

Battalion had gained the reputation as one of the best--able to rise to every mission. The experiences of the unit training at Fort Hood, deploying to Germany, and working with the 3d Armor Division through REFORGER, Gunnery and the Combat Maneuver Training Center (CMTC), and the Battle Command Training Program (BCTP) had produced a combat ready unit. My greatest concern was the changes in leadership and primary staff I had just conducted. The positive note was that most of the new leaders were from within the unit, and I retained about 75 per cent of the soldiers that had experienced the previous 18 months of training. As time passed, Desert Shield provided an opportunity to prepare these new leaders for the war ahead.

Although much is done in preparing for war--the same issues arise during training exercises--discipline, orders process, troop leading procedures, standards, battlefield operating systems synchronization, intelligence preparation of the battlefield, and mission, enemy, terrain and weather, troops and firepower available, and time (METT-T). Many soldiers fail to realize the benefits gained from past training until faced with the uncertainty and anticipation of combat. It is then that all those challenges and events become the repertoire of those preparing to fight for their nation. The basics, battle drills at every level, must be known. Realistic training, training as we expect to operate

In combat are essential. Standards of performance did not change, the environment, however, did, causing the need to continually rehearse and train. A unit must master the routine before it can expect to tackle the difficult. Readiness never takes a day off.

Mental and physical fitness had been constantly emphasized since the battalions' inception. These traits were key in deployment, acclimation and throughout our seven months of deployment. Examples of both acute and chronic fatigue were evident in soldiers of units deployed for over six months.

The strength of my unit had always been the ability to work together, arise to each challenge no matter how difficult or how small. My greatest concern remained--"What did I know that I had not told them?" Although the soldiers remained confident as we departed Europe, I also sensed that they felt that either through diplomatic or military means, the crisis would be over by Christmas. I continually cautioned the unit against this uncertainty, and the importance of mission focus.

I assumed that a clear mission focus would be gained upon arrival in Saudi Arabia--this was not the case. Many contingencies were in the planning stages. Leader focus was on who was ready to fight, measures of relative combat

power, and readiness. The Battalion arrived in theater with great ambitions and readiness for battle but momentum was slowed by periods of waiting and many mission changes. After three weeks in country, a mission and a tract of land were assigned to allow focus on planning and execution of the defense. Long range plans remained incomplete--subject to continued diplomatic and strategic sparring. Although impatient and anxious to 'do something', time was best used to train and refine unknown areas--medical evacuation, communications nets, logistics, fire support, passage of lines, and desert tactics to name a few.

Soldiers and subordinate elements espoused an aura of confidence as uncertainties were reduced, we gained a covering force mission (while being further attached to the 101st Air Assault Division), and mail from Germany began arriving along with the tremendous influx of 'any soldier' mail from the United States. One of the best things we did to further prepare for the road ahead was nuclear biological, and chemical (NBC) defense training, specifically decontamination of people and equipment in potentially traumatic conditions. The Physician Assistant attached to the Battalion was a prior Special Forces officer, with considerable experience in organizing for treatment of casualties under 'dirty' or chemical exposure conditions. We revitalized teams, rehearsed, trained, and ensured that

every soldier was competent and confident in these procedures. Although we had worked with medical and NBC procedures before, we had never trained and rehearsed both at the same time in this magnitude and environment--nor had many (any?) others in country. We subsequently packaged, video taped, and exported this training program for our new brigade, the 101st Division, and the units back in the 3d Armor Division. This experience was an unexpected boost to soldier confidence and readiness. Although not outwardly vocal about their concerns, the level of participation and eagerness to learn in training was apparent. We also trained the Division Chemical unit on our methods--thus increasing their readiness and standardization with the latest techniques. Likewise, we concurrently trained over one-third of the battalion as combat lifesavers, a skill we fortunately were not required to use, but which added confidence within our units.

My initial thoughts on our experience in the desert were captured at the request of the public affairs officer in the 3d Armor Division. Although somewhat redundant to the above, I have included a copy of the transmitted article from the desert to Germany at Annex C.

ENVIRONMENT

I must record my thoughts on the physical environment and host nation considerations. Although deployed less than seven months, we had an opportunity to view the harshness of the four seasons in the desert. Heat, cold, rain, vegetation growth, dust storms, and transformation of terrain by nature's elements. The range of temperatures approximated 100 degrees Fahrenheit. At night, all critters move seeking prey while trying not to become another's prey. Soldiers had steep learning curves in acclimation, learning to sleep while sweating, using netting to avoid flies, and keeping sand and dirt from food. Personal hygiene and field sanitation were paramount. No water source was potable. Exposed food and waste areas drew flies and rats, rats drew snakes, snakes threatened Bedouins, sheep and soldiers--all became carriers of dysentery. The hand washing facility in the mess line became a significant factor of importance.

The experience of occupying and defending another nation as a member of a coalition force, subject to customs and cultures of the host nation was unique for our Westernized soldiers. More importantly, future wars may be characterized by the same circumstances. Saudi Arabia is the seat of Islam, and has a distinguished history, but based on different principles. Government by monarchy, deep-rooted religious cultures, and a tradition of Arab beliefs characterize our host nation. U.S. soldiers were

confronted with this cultural difference. Rules, policies and education were prolific. For example:

- Pornography and alcohol prohibited
- Reduced exposure of women, especially driving vehicles and doing PT
- No open religious services
- Avoid camels--"All camels belong to the King" (no matter how ugly)
- Avoid oil pipelines
- Do not overfly Bedouin camps, camels, or built-up areas
- Do not let media orchestrate picture back drop that is contrary to host nation ideas
- No sun bathing
- Use cots--keep soldiers off the ground

Above all, the soldier and leaders at all levels were forced to think before they acted. Any perceived lack of discipline received immediate attention.

More important, the initial thrust into the desert for European units caused many items of equipment and life support measures to receive immediate attention--for example, ice chests, potable ice for cooling water/soda, sun screen, insect repellant to preclude sandfly fever, mosquito nets, cots, showers, sanitary latrines, vacuum cleaners, and bottled water. There were many potential hazards other than dysentery--such as anthrax, botulism, and malaria. This country had it all, and the desert comes alive with varmints and bugs at night.

Field sanitation during field operations was critical. Likewise, preventive maintenance of equipment and soldiers

took on a high priority. The soldiers soon realized that this would not be a short duration exercise, soldier and equipment readiness had to be preserved.

SOLDIERS

The individual soldier and his peers, crews, teams and basic units are the true heroes of the Desert Shield/Storm experience. This should not be a surprise. The majority of soldiers in an Apache Attack Helicopter Battalion were representative of the quality of soldiers in today's Army. Fifteen years ago, the results might not have been the same. Examples of dedication, discipline, self-confidence, patriotism, and acceptance of the responsibility to fight for and represent our nation were the norm. Yet many soldiers who were doubtful in training were also problems in a combat zone, and should be eliminated from a smaller, more professional Army.

Human nature in war and basic needs of the soldier or unit were observed and are a positive learning experience for those in our profession. Desert Shield and Desert Storm provided a unique experience for soldiers and families, especially those who left families behind in foreign countries upon deployment. The real product of the efforts of unit family support programs is the satisfaction the soldier feels that his family is taken care of. The old

adage that you must have the hearts and minds of the soldier to ensure resoluteness of mission focus could not be accomplished if his/her focus was distracted by family problems at home--he/she may then be more of a liability than an asset in combat. In turn, knowing families are secure and resources available to assist their needs provides an increased level of confidence, attention to detail, and efficiency for soldiers and units.

My reflections on soldiers were also given to company and platoon leaders. I cautioned leaders that their soldiers likely fell into one of three categories:

I--The overconfident warlord--commonly known as the John Wayne syndrome--those who espoused their impatience and thirst for combat.

II--The competent, quiet, level-performing, solid soldier--the ones who think logically through the tasks at hand, meticulously prepare themselves and are extremely proficient, disciplined, and reliable.

III--The fearful, dependent, unsure individual--either outward or inward fears preoccupied thoughts, incapable of independent action, and prone to error at critical times.

Of these three categories of soldiers, the leader must have knowledge of where each subordinate may stand. The goal is to train, mentor and strive for all individuals to gravitate toward Category II. A unit comprised of mostly Category II type individuals will pull together and succeed in tough times. These type individuals also bond units into cohesive teams. Leaders, at all levels, must identify

subordinates in these categories and construct teams/crews in balance to ensure success. This process also must be considered as risk management, as the commander/leader analyzes the mission at hand. My battalion had soldiers in all three of these categories.

The environment and continued stress of the anxiety, uncertainty and boredom of Desert Shield/Storm produced fatigue in leaders and soldiers alike. The cohesion of units is built through realistic training, tough experiences and reference to a common past, but during prolonged combinations of these experiences, fatigue will cause stress and minor incidents will become burdens to individuals and leaders alike. Commanders must continually assess their unit and key individuals for the consequences of acute or chronic fatigue. Duties can be rotated, scenery changed, chow varied, and soldier ingenuity used for entertainment, relief of stress, and means to escape the mental burdens of a Desert Shield/Storm experience. Commanders must see this in their units and accept risk or diversity to overcome depletion of a unit--often at the expense of more energy himself in the short term.

The key distractors and influences on morale of soldiers and units are largely the same as in peacetime environment--communications, security, consistency of priorities and focus, satisfaction of basic needs, and

recognition of performance, either positive or negative. However, three areas that had varying impacts on morale were lack of mail, causing uncertainty of status at home; lack of tactical knowledge, enemy and friendly; and basic quality of life, such as shower and latrine facilities, quality of rations, and availability of ice or sodas. Some of these factors are controllable at or below battalion level, others are not. It is important that soldiers share the same perception of equal distribution of critical resources. It is also essential to tell soldiers all that is known, even in times of uncertainty and ambiguity. Likewise, a commander must carefully evaluate decisions which cause undue expenditure of energy by soldiers for no positive gain.

A concern of commanders and soldiers is Operational Security (OPSEC). Once mail distribution is resolved, soldier letters and pictures often reveal information that could compromise future or current operations. This information, in turn, spreads throughout dependent information networks. It is often misunderstood, becomes the source of rumors, and causes additional effort to resolve issues. Needless waste of energy, notwithstanding potential mission impact, is spent by the chain of command and family support groups to correct information. This situation is often more complicated when in an attached unit

status, because normal communications networks are further limited. Guidelines must be stated early and continued levels of release of information explained. The smallest rumor or even correct information released in an untimely manner can escalate to the detriment of soldiers and families. The notice of a soldier's death, missing in action, or injury passed through second hand information is an example. It is human nature to seek and pass information about loved ones, we must do the best we can to ensure that information is releaseable and accurate. Modern communications systems facilitate information flow, accurate or inaccurate.

Likewise, laundry services collect identification cards, maps, tactical operations center (TOC) passes, communications data, and various items important to OPSEC and unit security. Caution must be emphasized immediately, especially in a potential terrorist environment.

On two different occasions, we were able to call Germany and allow three minutes of phone conversation between each soldier and family members. The benefits of these calls far outweighed the expense incurred achieving this objective.

Last, a commander must not underestimate a soldiers' ingenuity. Given certain limits, the American soldier will

achieve his mission, make something out of nothing, and support his fellow soldier. Hidden talents often arise during idle times, leaders must recognize these skills and harness energies to the benefit of all soldiers. Quality of life was enhanced by soldiers with carpentry skills at forward operating bases.

MISSION AND DOCTRINE

Attack helicopter assets were deployed from Germany to get tank-killing assets promptly into Saudi Arabia. The missions of the Battalion can be summarily stated in five phases:

- I. Deployment
- II. Acclimation and Train-up
- III. Defensive Operations
- IV. Offensive Operations
- V. Redeployment and Reconstitution

Specific missions in each phase were not part of the unit mission essential task list (METL). However the flexibility, agility, and quality soldiers of the Attack Battalion was the key to success. Deployment from Germany was not an issue prior to Desert Shield, now units will be better prepared. Twice during the year prior to Desert Shield, I had suggested without success that this task be added to facilitate future contingencies. During the Defense, I found myself conducting covering force operations. In Europe, the Cavalry were relied upon for

this mission. As Desert Storm began, the Battalion was tasked to lead, cover and secure the insertion and extraction of long range surveillance detachments (LRSD) deep into Iraqi territory. Contingencies were developed to assist in security of extraction missions to recover downed aircrews and other LRSD teams in contact. Again, this was not a prior METL tasks, but the soldiers were more than willing to assist in any way. Likewise, the conduct of Corps deep attacks and continual passage of lines instilled confidence in the soldiers that previous training and tactical procedures work. The opportunity to work with all Corps elements, other divisions, and French soldiers provided invaluable experiences. The thread of continuity was the mission and will of all soldiers to achieve success. All units wanted to contribute.

Many times the focus of accomplishment of aviation units is on aerial exploits. Desert Shield and Storm reinforced the importance of the 'other' soldiers on the Battalion team. Desert Shield was a total success, with continued training, alert status and mission focus on warfighting realities. Then a final preparation began for the offense--twenty-four hour a day operations to prepare for a combat surge. This operation included removal, painting, and reinstalling rotor blades on all aircraft. With the beginning of Desert Storm, the ground support

vehicles, equipment and personnel embarked upon a 750 kilometer movement to our initial assembly area for the offense. Subsequently, with the attack into Iraq, these elements again convoyed over 350 kilometers into Iraq to link-up with air assets. The Command Sergeant Major, First Sergeants and leaders at all levels rose to the occasion and achieved overwhelming success--losing not one soldier or piece of equipment. This experience exemplifies the achievements of many unsung heroes of Desert Shield and Desert Storm.

Two other mission variables require mentioning. The rules of engagement (ROE), from the outset, were the best I have seen to allow freedom of action, security of forces, and protection of noncombatants. The aircrews knew the rules from the beginning and this eliminated any potential concerns. Secondly, the commander must allocate assets to the mission commensurate with the threat. The firepower and lethality of an Attack Helicopter Battalion could easily be demonstrated in massing all assets on a particular target. However, preservation of aircrews, equipment and ammunition dictates allocating numbers of aircraft equal to the mission requirements. Ground commanders may not have experience in the capabilities of attack assets and must be advised on whether to employ assets sequentially, continually or in mass. The Battalion Commander of an

Attack Battalion must use constraint when knowing all companies and aircrews want a piece of Iraq.

This war is also significant for future insight into the use of attack helicopter assets. Past training experiences, major field exercises or command post exercises, revealed the intent of Division and Corps Commanders to call upon attack helicopters once bogged down, when a concentration of enemy forces was located, or generally when ground Brigades needed help. Often, these commanders were reluctant to send aviation units across the forward line of troops (FLOT) or to risk these assets. Although my experience showed that the Attack Battalions were relied upon as quick and essential combat multipliers, I did see a change in the warfighting techniques by senior commanders. Basically, attack helicopters were used out front of ground forces, used to gather info on terrain and enemy positions, used to soften targets to ensure success of ground unit advances, and used to exploit the offense with stand-off killing capabilities. The ground commander fought four dimensions in the battle--deep interdiction with Air Force allocated sorties, deep in sector with attack helicopters and multiple launch rocket systems (MLRS), a close fight with tanks and infantry, and the rear fight and flank security with all other available forces. This perspective was a dynamic transition of commander decisions

and the Attack Battalion proved more than able to accept the challenge. As a result, the viability of aviation attack assets as a combined arms team player can only be strengthened. A major success for aviation credibility and our great soldiers.

EQUIPMENT AND MAINTENANCE

Much has been said on the need for preventive and sustained maintenance of equipment. The real lesson learned for the future is designing equipment which is operable in all environments. Older equipment, specifically wheeled vehicles, had difficult times in the desert. Batteries, tires, airpowered turbines, and black boxes that were not environmentally sealed continually failed. Sand, dust, and dirt erodes the finish and will cut through most soft components. The sun, wind, and rain of the desert is not blocked by man-made or artificial barriers. Humidity and even slight moisture at night quickly erodes weapons, ammunition and critical items of equipment--there are no time outs for maintenance to ensure readiness. Individuals as well as first line supervisors, must constantly check equipment. Vacuum cleaners, commercial generators, and water dispensing devices such as the decontamination sonator proved invaluable to preventive maintenance.

Readiness of equipment remained high for many reasons. The first was undoubtedly the intense desire of all involved to stay combat ready and the logistics priority of the theater. The experience level of maintenance and operator personnel had also increased as a result of more than two years with the Apache helicopter. Another important reason is the ability to work around the shortfalls of the logistics system. Of special note is the fact that cross-attached units lose visibility in other major command supply support activities. For example, the battalion accounting code in Europe was obviously not visible within the XVIII Airborne Corps system. The ability to acquire parts through stovepipe systems and to cooperate with other Apache battalions and support units were the only means of readiness survival when basic parts supplies diminished.

The real lessons learned for soldiers who experienced Desert Shield and Desert Storm are preventive maintenance and preparation for harsh environments.

LEADERSHIP AND KEY DECISIONS

The keys to effective leadership in Desert Shield and Desert Storm were setting the example, communicating with soldiers, and sustained visibility during tough times. Common sense and logical approaches to conditions of uncertainty must prevail--resulting in mutual trust and

confidence between soldiers and leaders. A commander must refrain from peaking and lowering soldier's emotions at inopportune times. Commanders and leaders must lead from the front and set the example to be effective. Soldiers may not understand that information is unreliable, but every effort to tell them all that is known about the enemy and friendly situation is key. In our case, two sources of information were the British Broadcasting Company (BBC) and the Voice of America over short-wave radio. Some days these were the only sources of new information available.

Few policies and host nation agreements are decided at Battalion level. However, a Battalion Commander must keep his superiors advised to ensure proper consideration of his soldiers. Conditions for evacuation of soldiers, constrained resource and logistics priorities are decisions retained at Division and Corps level. The Battalion Commander must look at all mission contingencies and ensure that details are not overlooked which may impact mission success or soldier safety and survivability--for example, determining aircraft weapons configuration, weighing alternatives to mount an external fuel tank to increase aircraft range, reviewing search and rescue (SAR) procedures, seeking enemy disposition, and ensuring proper allocation of mission assets. The Battalion Commander must concentrate on executing the tactical level of warfighting.

To become consumed by other matters over which he has no control is to the detriment of his unit and his soldiers. Likewise, he must anticipate and ensure that he retains flexibility and agility to achieve mission success when uncertainty is fostered by lack of intelligence. Subordinate unit reports and first-hand knowledge of equipment, personnel/aircrews, communication and logistics are paramount to the decisionmaking process. Different commanders will have different perspectives on what is important, but their focus must be on warfighting and their soldiers.

SAFETY

"Pride is a competitor to professionalism if not in control." These words were from the Corps Commander after several aviation accidents in the first two months of desert night flying. The harsh desert environment was a challenge, especially for units transitioning from the terrain of Germany. However, standards of performance and basic procedures did not change. Experience was gained over time, however many variables had to be reviewed. The desert requires additional grounding procedures to preclude static electrical charges, aircrews and soldiers are deprived of essential rest during hot days and nights, insects are prevalent, and equipment performance degraded. Missions, tactics, training, maintenance, aircrew selection, and

soldier work periods require revision with a crawl, walk, run approach when acclimating to a harsh desert environment. Water consumption, the buddy system, and continual accountability of personnel and equipment is paramount. Some soldiers require special medication, especially if asthmatic, and should be closely scrutinized during predeployment screening.

Nonetheless, self-discipline and supervision are imperatives for safety. Noncommissioned officers (NCO) are the key to soldier safety. Their presence, their overwatch and their foresight is invaluable. Individual soldier discipline in doing what's right versus what's easiest when independent of supervision is also key. Aircrews must continually plan in detail every mission, and potential contingencies. The war zone reinforces standards of performance. Specificity and experience is important, for example using lifting versus towing shackles on vehicles during loading, vehicle identification markings, and correct preventive maintenance and pre-combat inspections.

Safety guidelines for soldiers under the XVIII Corps included:

- Take charge, commanders and leaders make decisions proactive and do not have soldiers doing anything their incapable of doing.
- Commanders must certify in mind and heart every mission, if the mission or tactic does not seem

right--don't do it.

- Confidence and enthusiasm overwhelm capabilities if not in control.

- No one does anything well when intimidated.

- Pre-visualize, talk through tasks before experience.

- Rules for risk management: Accept no unnecessary risk, leaders at risk level make decisions, and accept risk only when outcomes exceed possible costs.

- Watch crew/driver selection.

- Pay attention to maintenance.

Prior to embarking upon Desert Storm, further safety guidance was received to have multiple logistic support plans and 'to go out like a marathoner, not a sprinter'. Pace is important.

For the commander, mission risk is also associated with the categories of soldiers previously described. The opportunity to see the results of mentoring and training soldiers for combat is rare. Discipline, safety and survivability, while accomplishing every mission, are measures of how well leaders have done.

FAMILY SUPPORT PROGRAMS

My initial thought on family support programs is how does a commander measure success in this area? The satisfaction of one subset of dependents or a specific family is often at the disgruntlement of others. Leaders' dependents are not required to assume all responsibilities

you desire of them, and achievements are the result of the relative merit, initiative and caring of only a consistent few. Fragile family relationships will sever during tough times and physical separation. Other relationships will often strengthen. A commander has little control over relationships, but can facilitate a sound environment for families left behind. A quote by B.H. Liddell Hart appropriately summarizes a soldiers potential dilemma:

Man has two supreme loyalties--to country and to family...So long as their families are safe, they will defend their country, believing that by their sacrifice they are safeguarding their families also. But even the bonds of patriotism, discipline, and comradeship are loosened when the family itself is threatened.

Selection of stay-behind teams is important, especially when only selected units deploy from an area. Deployment from an overseas location to a combat zone is also a different situation. Policies, rules and laws were generally not in place to allow flexibility in caring for families left behind. Once the deployment from Germany escalated, the 'they' became 'we' for many communities and positive action resulted. The stay behind team must be reliable, ethical and hard working soldiers--to assume non-deployables can handle these new demands is short-sighted. This team must command the trust and confidence of families, be responsive, and sustain law and order. Demands will come from both the deployed unit and

the families left behind. Time will be a precious resource. Points of contact and working relationships within community support groups is paramount. The leader of this team must be a responsible, dynamic individual.

Never before in the U.S. history has the U.S. Army attempted to solidify family support organizations more than during Desert Storm. For many, the experience will be expected in the future, others will envision the experience as an unwanted task, and yet others will have a positive remembrance of the success achieved in helping others and helping themselves. Many units succeeded with the family support group experience, yet failed to realize how success was measured.

CONCLUSION

Desert Shield and Desert Storm provided a once in a lifetime experience for many battalion commanders. These lessons learned should not dictate a mold from which to base all future courses of action, but rather provide an understanding and foundation from which to apply rational thought. Our Army has a tremendous level of experience. We must continue to challenge these soldiers, to hone their skills, transfer their knowledge, and prepare for future possibilities.

Those who deployed to the desert should not be earmarked above peers for their experience. We have quality soldiers throughout the Army, many of whom were at the right place in time. Others could have easily met the task and achieved success.

The significant implication for the future is that all units must stand ready, willing and able to meet future challenges. Desert Shield and Desert Storm proved to many that our profession is warfighting, not just a job.

I hope my thoughts and experiences are beneficial to future leaders at the tactical level of warfighting.

Inclosures:

Annex A--Operational Summary
Annex B--12th Aviation Brigade Summary
Annex C--First Impressions and Articles
Annex D--Reference Maps

ANNEX A -- OPERATIONAL SUMMARY

THE WHITE HOUSE
Office of the Press Secretary

For Immediate Release

January 21, 1991

EXECUTIVE ORDER

- - - - -

**DESIGNATION OF ARABIAN PENINSULA AREAS,
AIRSPACE, AND ADJACENT WATERS AS A COMBAT ZONE**

By the authority vested in me as President by the Constitution and the laws of the United States of America, including section 112 of the Internal Revenue Code of 1986 (26 U.S.C. 112), I hereby designate, for purposes of that section, the following locations, including the airspace above such locations, as an area in which Armed Forces of the United States are and have been engaged in combat:

- the Persian Gulf
- the Red Sea
- the Gulf of Oman
- that portion of the Arabian Sea that lies north of 10 degrees north latitude and west of 68 degrees east longitude
- the Gulf of Aden
- the total land areas of Iraq, Kuwait, Saudi Arabia, Oman, Bahrain, Qatar, and the United Arab Emirates.

For the purposes of this order, the date of the commencing of combatant activities in such zone is hereby designated as January 17, 1991.

GEORGE BUSH

THE WHITE HOUSE,
January 21, 1991.

#

A-2

CHRONOLOGY

ALERTED FOR DEPLOYMENT.....16 AUGUST 1990
DEPLOYMENT FROM GERMANY.....28 AUG-29 SEP 1990
EQUIPMENT DEPARTURE
RAIL.....28-29 AUG 90
PORT OPS.....2-10 SEP 90
EQUIPMENT ARRIVAL
PORT OF AD DAMMAN.....22-29 SEP 90
PERSONNEL
FRANKFURT TO DHAHRAN..12-16 SEP 90

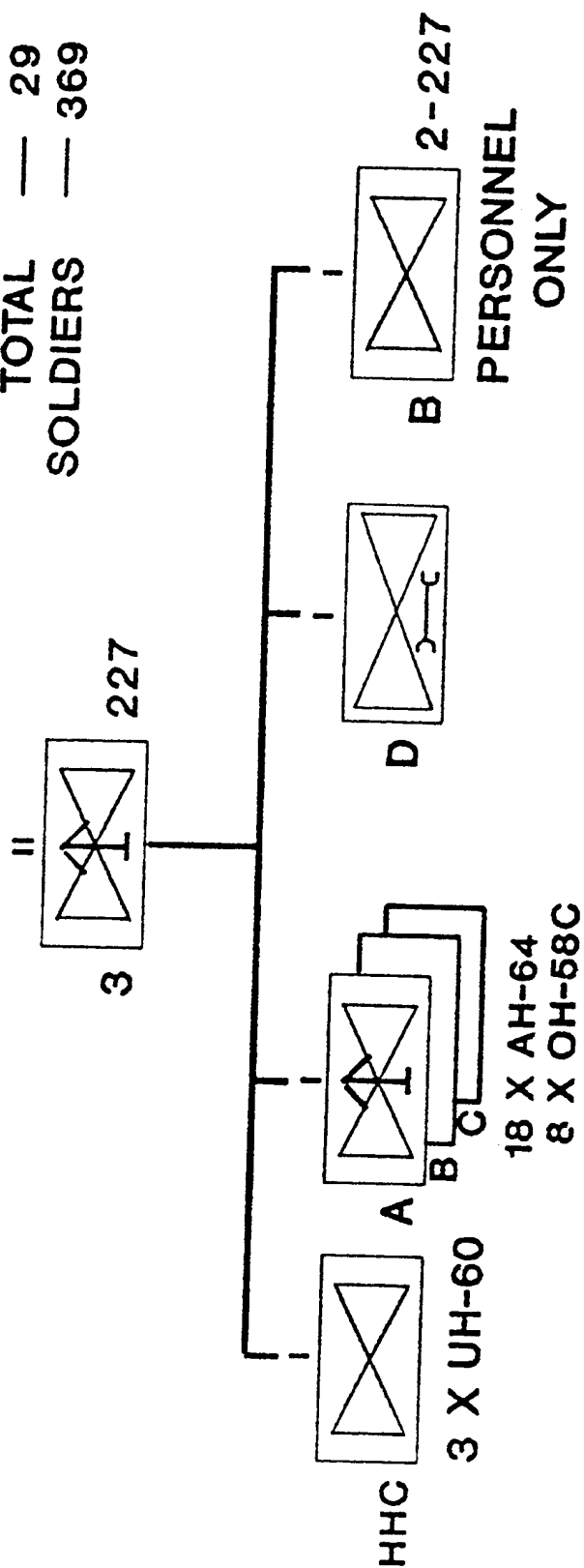
TRAIN-UP.....29 SEP-10 OCT 1990
DESERT SHIELD.....10 OCT 90-15 JAN 91
DESERT STORM.....16 JAN-18 MAR 1991
REDEPLOYMENT
PERSONNEL.....18 MAR-6 APR 1991
EQUIPMENT.....3 APR-15 MAY 1991

INCLUSIVE DATES.....AUGUST 1990 THRU MAY 1991

3-227 AVN

AIRCRAFT

AH-64	—	18
OH-58C	—	8
UH-60	—	3
TOTAL	—	29
SOLDIERS	—	369



PERSONNEL AND LOGISTICS

PERSONNEL

	OFFICERS	WARRANTS	ENLISTED	CIV	TOTAL
AUTH	21	44	197	0	262
ASGN	23	47	226	0	296
ATTCH	12	23	145	7	187
DEPLOYMENT STRENGTH	33	68	361	7	469
OPERATING STRENGTH	31	68	263	7	369

EQUIPMENT

	AH-64	OH-58C	OH-58D	UH-60	TOTAL
AIRCRAFT	18	8	6	3	35
FLIGHT HOURS BY TYPE	2069	1090	744	432	4335

(NOTE--COMBAT HOURS > 500 TOTAL)

VEHICLES

TRAILERS

DEPLOYED.....118

DEPLOYED.....63

NORMAL STRENGTH...79

NORMAL STRENGTH...56

(NOTE--MILES DRIVEN ON NORMAL VEHICLES > 170,000)

MILVANS

EQUIPMENT.....16

AMMUNITION.....44 (BASIC LOAD)

CONEX FOR SENSITIVE ITEMS.....1

OPERATIONAL SUMMARY

During the eight months of Operations Desert Shield and Desert Storm, the 3d Battalion, 227th Aviation Regiment was attached to the 12th Aviation Brigade which was, in turn, attached to the XVIII Airborne Corps. This relationship was unique for a unit based in Europe to be attached to an American based unit, occupying yet a third country. Deployment of this V Corps Brigade from NATO established a historical precedent, further signifying the end of the Cold War.

During Operation Desert Shield, the 12th Brigade defended in the Corps sector from 10 October 1990 to 16 January 1991. This mission involved constant coordination with XVIII Airborne Corps, 101st Airborne Division (AASLT), the 3d Armored Cavalry Regiment and Eastern Province Area Command (EPAC) Forces. During this period, the 3d Battalion executed a covering force mission along the Saudi Arabian/Kuwait border. In preparation for combat, the 3d Battalion planned and reconned the area of operations in detail, conducted intelligence preparation of the battlefield, and participated in numerous communications and field exercises with adjacent units. Actual rehearsals of planned operations were conducted during day and night, to include short notice response exercises. Live fire exercises of all weapons systems were conducted to ensure equipment and soldier readiness. Throughout Desert Shield, the battalion rotated companies, maintenance support elements, and staff support personnel to the forward support base commonly known as Bastogne. By the end of Desert Shield, the 3d Battalion was a superbly trained fighting force, prepared to conduct combat operations.

During Operation Desert Storm, the 12th Brigade was assigned the mission of XVIII Corps reserve with contingencies to operate throughout the Corps sector, and lastly to destroy the Republican Guard forces once the advance had succeeded. The two Apache Attack Helicopter Battalions assigned to the 12th Brigade, the 3/227th Aviation and 5-6 Cavalry, were further assigned responsibilities for different contingency missions. Although a magnitude of planning, coordination, and rehearsal were completed, only the missions detailed below were actually conducted by the 3d Battalion. On D-Day, (initiation of the air campaign) the unit moved 750 kilometers to occupy and assembly area on the western flank of the XVIII Corps sector, near the town of Rahfa. Prior to G-Day (initiation of the ground war) several deep attacks and LRSU operations were conducted into IRAQ. Upon initiation of the ground offensive, amidst a violent rain

and sand storm, the battalion moved by air and ground over 350 kilometer into Iraqi territory. During the evening of 27 February, the battalion attacked deep once again to cut off the Iraqi withdraw routes north of the town of Basrah, Iraq. This attack was the deepest penetration of U.S. Army forces during the ground offensive. Shortly after the cease fire was announced on 28 February 1991, the 12th Brigade was directed to withdraw from Iraq, assume the role of Corps reserve, and begin preparation for strategic redeployment to Germany.

The following is a summary of 3/227th Battalion combat operations during Operation Desert Storm from 20 February thru 3 March 1991.

a. 20 February 1991 (G-4)

Mission: 3/227th Aviation conducted two night attacks, cross flot into Iraq under brigade control as part of the XVIII Airborne Corps efforts to 'soften' the 6th French Light Armor Division's opposition in preparation for future ground operations. The unit attacked 60 kilometers deep into Iraqi territory to strike moving targets detected by French and U.S. intelligence gathering assets. Sensor and downlink assets included J-Stars, Quicklook and the French "Hours" system (a SLAR mounted on a Puma helicopter). Nonlethal SEAD was provided by Guardrail, EF-111 Raven, and EC-130 Compass Call. Although not used, lethal SEAD (3 Artillery Battalions) was on call from the Corps artillery. The attack battalion responded quickly to real time, downlinked data to destroy targets. This mission was the first Desert Storm use of direct data downlink to support attack helicopter operations. Moving target information was sent directly to the brigade tactical command post via FM communications from Quicklook and the French "Hours" downlink station.

Time of attacks: 2041C thru 0015C

Mission results: The Iraqi 45th Infantry Division's reinforcement and resupply efforts, as well as force repositioning, were disrupted. Several enemy vehicles and two Iraqi early warning radar complexes were destroyed. Destruction of the radar sites reduced the ADA threat in an area larger than 100 square kilometers. The unit sustained no combat losses or damage.

Remarks: This operation culminated over five months of persistent work by the 12th Aviation Brigade to convince the XVIII Airborne Corps of the need for a deep operations planning and execution cell in the Corps Main Command Post. This operation was a classic execution of AirLand Battle Doctrine, possibly the first of the war.

b. 20 February 1991 (G-4)

Mission: The 3d Battalion supports by leading and covering UH-60 aircraft from Task Force Warrior to insert three long range surveillance teams, at night, 230 kilometers deep into Iraqi territory. The unit penetrated Iraqi air defense systems, inserted three 6-man teams, and egressed back to friendly lines undetected. During the next 24 hours, the 3d Battalion and Task Force Warrior conducted emergency extractions of these teams and six enemy prisoners of war. Apache aircraft attacked and suppressed enemy locations along the route. All aircraft were equipped with extended range fuel tanks (two per UH-60 and one per AH-64).

Initial Times:

Line of Departure	2115C
Insertion	2231C
Egress from Iraq	2356C

Mission Completion: 2330C on 24 February.

Mission Results: This mission proved vital to XVIII Corps preparation of the battlefield, providing intelligence on Iraqi positions and movements vicinity key ground objectives for G+1. The unit sustained no combat losses or injuries. One AH-64 sustained damage due to a hard landing when the second extraction flight encountered a severe sand and rain storm just prior to entering Iraqi airspace and were forced to momentarily land.

Remarks: This operation was one of the first Corps level LRSU insertion missions conducted in actual combat. Global positioning systems were mounted on each aircraft to enhance desert navigation capabilities at night. The aircrews and LRSU teams conducted extensive rehearsals of all contingencies prior to the mission.

c. 26 February 1991 (G+2)

Mission: Elements of the 3d Battalion, along with the 12th Aviation Brigade, entered Iraq with a 96 vehicle advance party. The battalion forward rearm and refuel assets were included in this initial convoy to facilitate link-up with air assets for continued operations. The initial forward operating base was FOB Cobra, 110 kilometers inside Iraqi territory.

Mission continuation: Enroute to FOB Cobra, the brigade received a change of mission to continue to a new FOB Viper, another 160 kilometers to the east. This advance party element, with battalion FARP assets, arrived at FOB Viper at 0930C on 28 February, after traveling more than 518 kilometers non-stop, in 49 hours. The last 90 kilometers of

the march was over open desert at night. The main convoy followed within twelve hours after this lead element.

Remarks: No vehicles were lost during the movement. With the arrival of the advance party, the battalion had sufficient fuel and ammunition to continue the attack to destroy the remaining Republican Guard forces. The main convoy arrived in the night of 28 February, with all assets in tact.

d. 27 February (G+3)

Mission: Along with movement to FOB Viper, the 12th Brigade was placed OPCON to the Commander, 101 Air Assault Division, and directed to attack north of the Euphrates River to sever Iraqi withdraw routes and to recon possible landing sites for air assault operations. The 3d Battalion was the first unit to close on FOB Viper and were directed to attack as soon as possible per the CG's order. Commencing at 1530C, the 3d Battalion launched 14 attack aircraft and one UH-60, designated kill zones were 70 kilometers north of Basrah, Iraq, along highway 6. This attack was conducted after the battalion had already moved over 450 kilometers in the prior six hours.

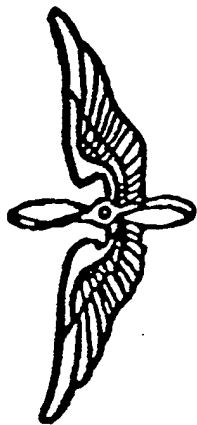
Mission results: An ammunition storage site, 20 vehicles, and two MI-8 helicopters (RGFC Infantry) were destroyed. A pontoon bridge used by withdrawing enemy forces, an MTLB, and two towed 152mm howitzers were also destroyed.

Remarks: This mission clearly showed the flexibility and agility of the Apache Attack Helicopter Battalion. No combat losses were sustained, however one aircraft flew the return flight to friendly territory after the loss of lubricant to its transmission. As the war came to a close, the 3d Battalion had penetrated Iraqi territory further than any other unit in the ground offensive.

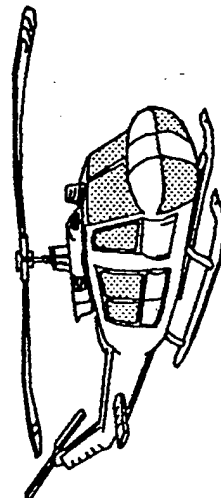
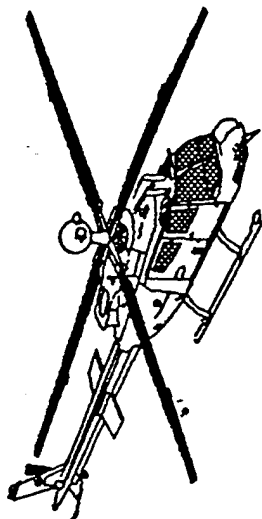
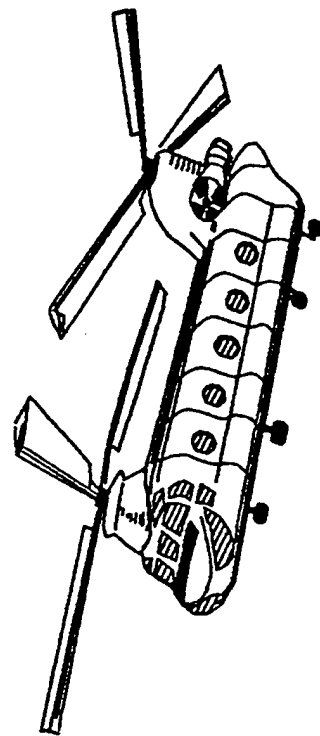
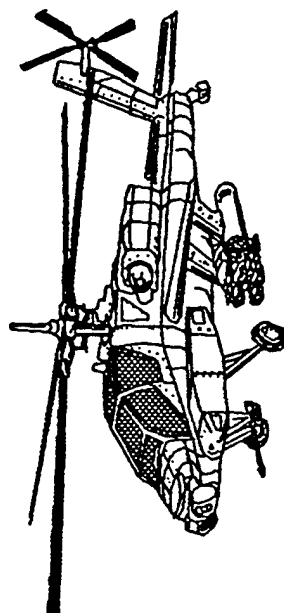
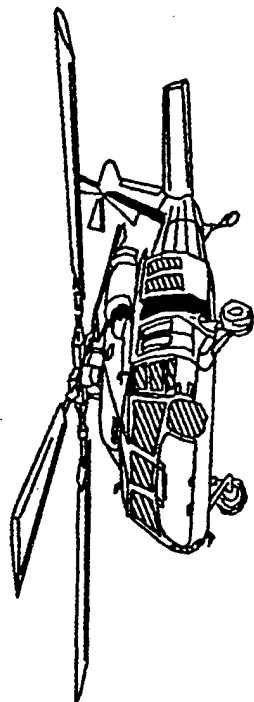
At the time of the cease fire, the 3/227 Aviation Battalion was postured for battle 300 kilometers inside Iraq, prepared to continue interdiction of lines of communication and assist in the destruction of the Republican Guards Divisions.

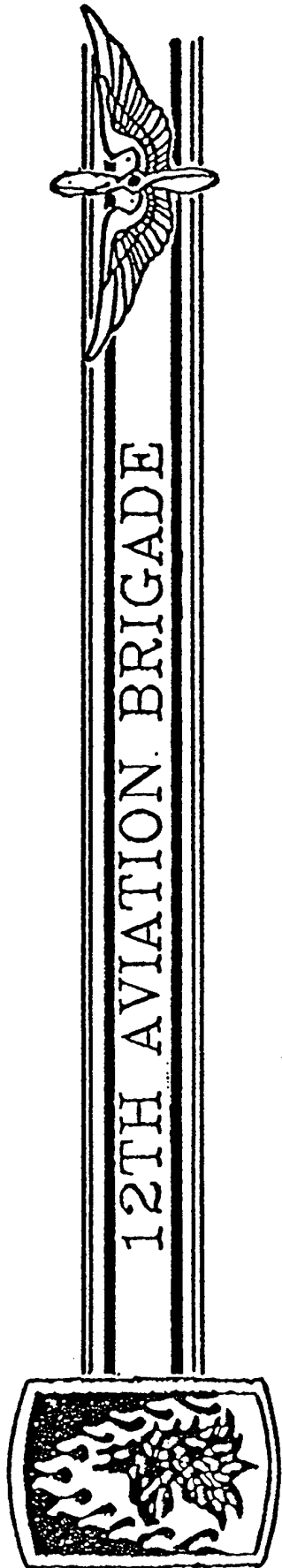
Concise, detailed planning, outstanding equipment, and highly trained professional soldiers were the keys to our success. The knowledge and experience gained during both Operation Desert Shield and Desert Storm are invaluable.

ANNEX B-- 12th AVIATION BRIGADE
SUMMARY



12TH AVIATION BRIGADE

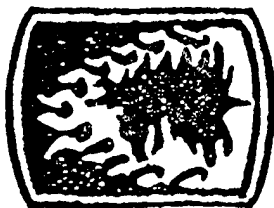




"AIR ATTACK"

DEPLOYMENT

10 AUG - 10 OCT



12TH AVIATION BRIGADE



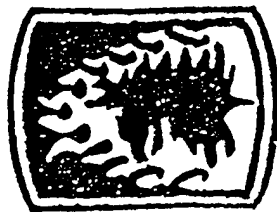
DEPLOYMENT MISSIONS

V CORPS MISSION

ON ORDER, V CORPS DEPLOYS 12TH AVIATION BRIGADE TO SAUDI ARABIA BY AIR, LAND, AND SEA ON OR ABOUT C+22; ATTACHED TO ARMY CENTRAL COMMAND (ARCENT) ON ARRIVAL; CONDUCT COMBAT OPERATIONS ON ARRIVAL.

12TH AVIATION BRIGADE MISSION

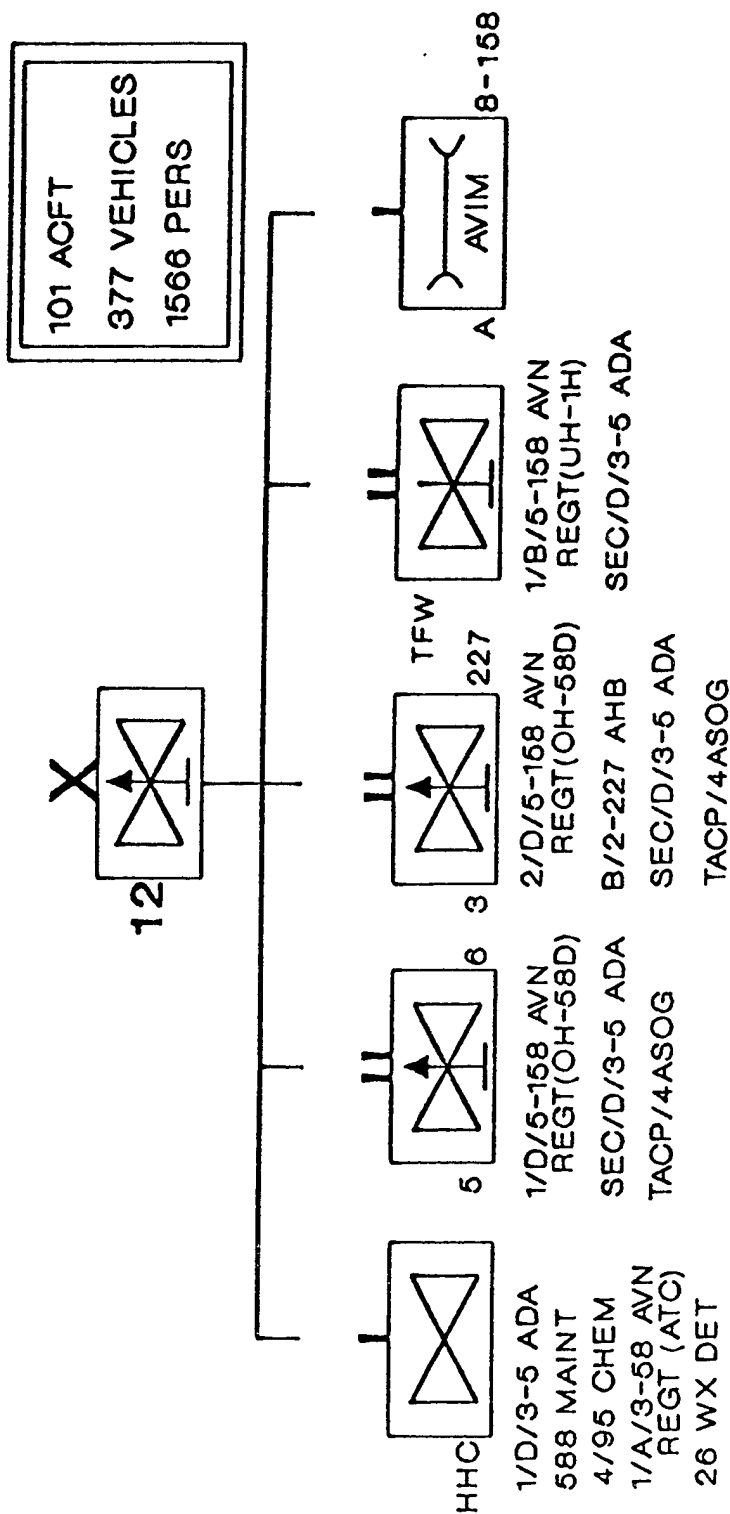
12TH AVIATION BRIGADE DEPLOYS TO SAUDI ARABIA ATTACHED TO ARCENT. ON ORDER CONDUCTS COMBAT OPERATIONS.

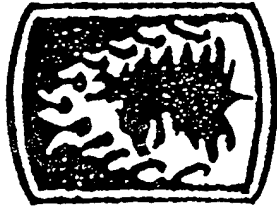


12TH AVIATION BRIGADE

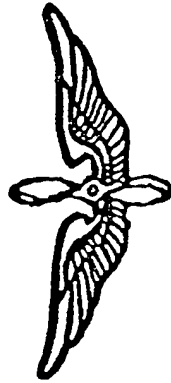


V CORPS STRATEGIC DEPLOYMENT FORCE





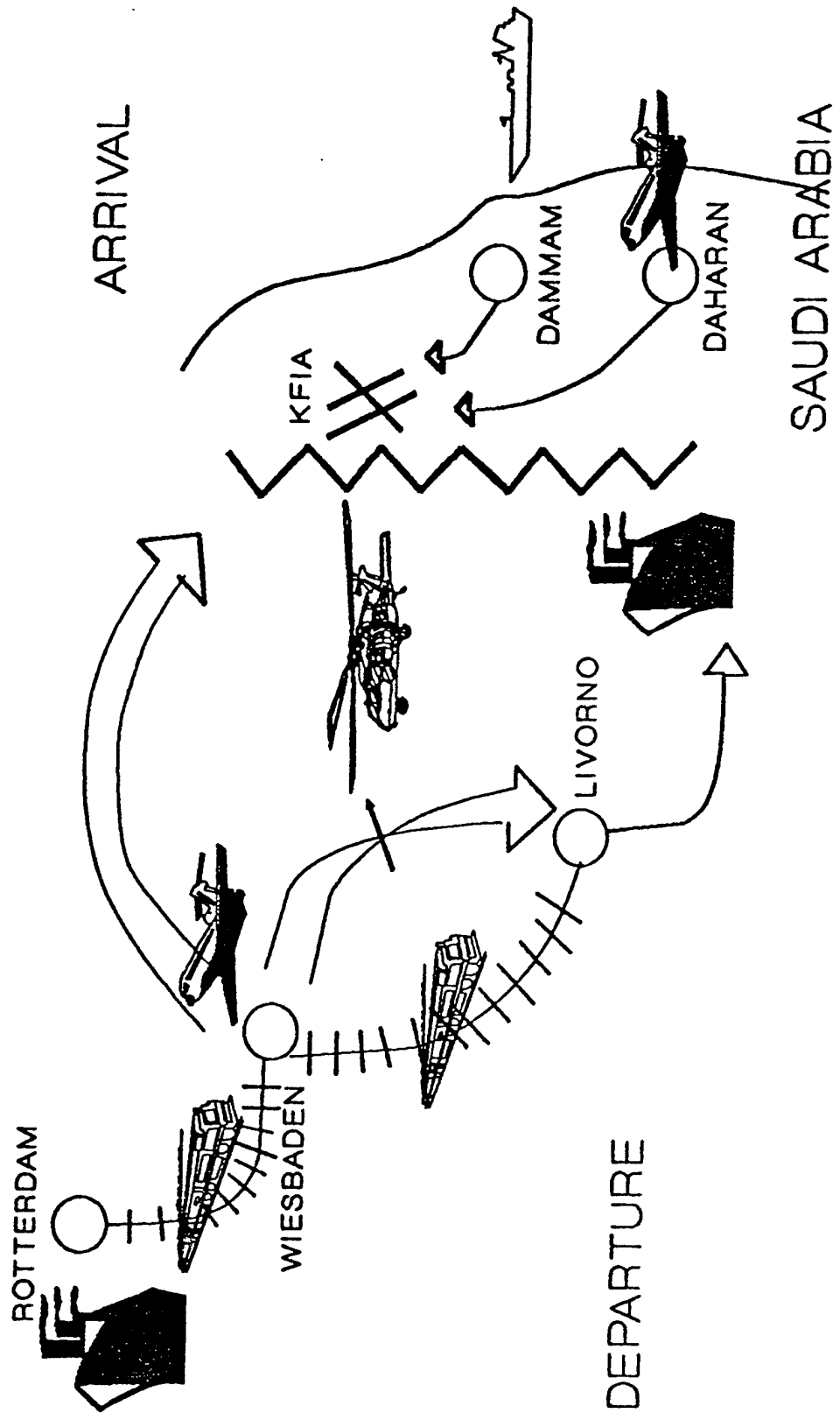
12TH AVIATION BRIGADE



METHOD OF DEPLOYMENT

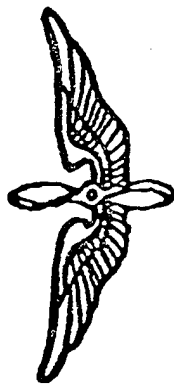
- RAIL MOVEMENT
 - 14 TRAINS
 - 4 RAILHEADS
 - 715 VEHICLES/TRAILERS
- PORT OPERATIONS/SEA MOVEMENT
 - 2 LOCATIONS (LIVORNO, ROTTERDAM)
 - 3 SHIPS (JOLLY SMERALDO, WADAI, ARCADE EAGLE)
- AIRCRAFT SELF DEPLOYMENT
 - 101 AIRCRAFT
 - 2 ROUTES (FRANCE, AUSTRIA)
 - 3 DAYS (29-31 AUGUST)
- MAC AIRLIFT
 - TACP (DEPLOYED ON 5 SEP 90)
 - APPROXIMATELY 1450 SOLDIERS

DEPLOYMENT





12TH AVIATION BRIGADE



DEPLOYMENT

- VEHICLES 377
- AIRCRAFT 101
- PERSONNEL 1566

FROM THE FOLLOWING COMMUNITIES:

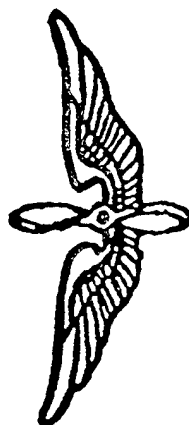
- | | | |
|-----------------|------------------|-----------------|
| - WIESBADEN | - HANAU | - MANNHEIM |
| - MAINZ-FINTHEN | - GIESSEN | - HEILBRON |
| - FRANKFURT | - BERLIN | - BAD KREUZNACH |
| - BUEDINGEN | - KAISERSLAUTERN | - DARMSTADT |
| | | - BAUMHOLDER |

DESERT SHIELD

27 SEP 90 - 17 JAN 91



12TH AVIATION BRIGADE



DESERT SHIELD MISSION

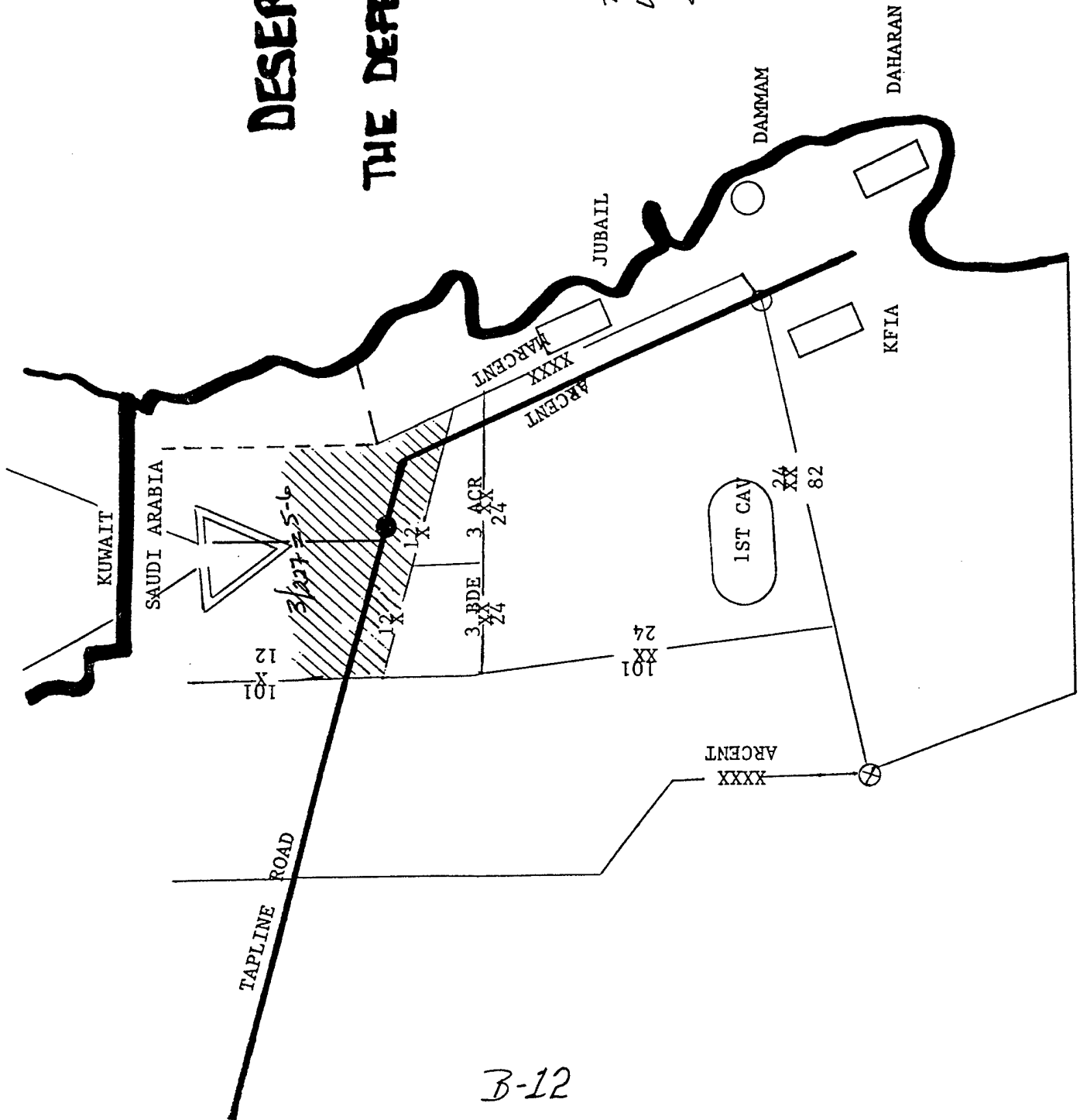
WHEN DIRECTED, 12TH AVIATION BRIGADE CONDUCTS COVERING FORCE OPERATIONS IN SECTOR; SUPPORTS EASTERN PROVINCE AREA COMMAND FORCES IN PASSAGE OF LINES; REVERTS TO DIVISION RESERVE AFTER BATTLE HANDOVER TO 3D BDE AND 3D ACR; ON ORDER, CONDUCTS COUNTERATTACKS; ON ORDER, REVERTS TO CORPS CONTROL AND PREPARES TO CONDUCT DEEP OPERATIONS.

DESERT SHIELD

THE DEFENSE OF SAUDI ARABIA

3/227th Sector
for covering force operations
was on left, forward of
3rd BDE, 101st AASLT DIV.

DATES: 10 Oct 90
thru 15 Jan 91
AT WHICH TIME MARINES
ASSUMED RESPONSIBILITY
FOR SECTOR.



DESERT STORM

17 JAN 91 - 28 FEB 91



12TH AVIATION BRIGADE

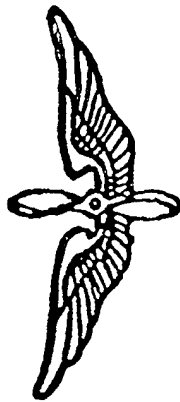


DESERT STORM MISSION

ON ORDER, 12TH AVN BDE DEPLOYS TO ASSEMBLY AREA SPRUCE AND ASSUMES THE ROLE OF CORPS RESERVE; ON ORDER, CONDUCTS LRSU INSERTIONS AND EXTRACTIONS; ON ORDER, CONDUCTS TARGET ACQUISITION AND ARTILLERY ADJUSTMENT OPERATIONS FOR CORPS ARTILLERY; ON ORDER, ATTACKS TO SUPPORT THE CORPS MAIN EFFORT VIC OBJ WHITE; ON ORDER, SUPPORTS THE 101ST ABN DIV (AASLT) IN AO EAGLE AND PROTECTS THE CORPS EASTERN FLANK; ON ORDER, SUPPORTS THE ATTACK OF 24TH MECH DIV VICINITY OBJ GOLD; ON ORDER, ATTACKS TO DESTROY IRAQI RGFC DIVISIONS VICINITY OBJ ORANGE.



12TH AVIATION BRIGADE



TASK ORGANIZATION

5-6 CAV

D/5-158 AVN (OH-58D)(-)
2/1/D/3-5 ADA

TACTICAL AIR CONTROL PARTY

3-227 AVN

2/D/5-158 AVN (OH-58D)(OPCON)
1/1/D/3-5 ADA

TACTICAL AIR CONTROL PARTY

TF WARRIOR

A/2-158 (OPCON)(PHASE IIIA)
1/B/5-158 AVN (UH-1H)
3/1/D/3-5 ADA

HHC, 12AB

1/D/3-5 ADA (-)

4/95 CHEM

1/A/3-58 AVN (ATC)

1/588 MAINT

26 WX DET

VCA FSE

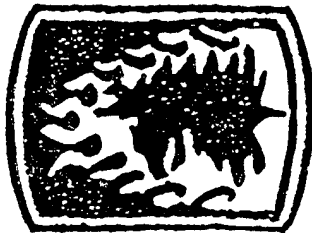
TACSAT TEAM

RATT TEAM

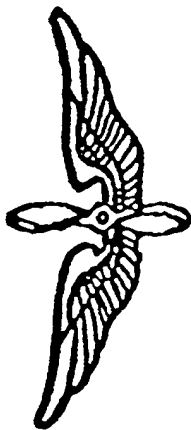
TACP (-)

B-15

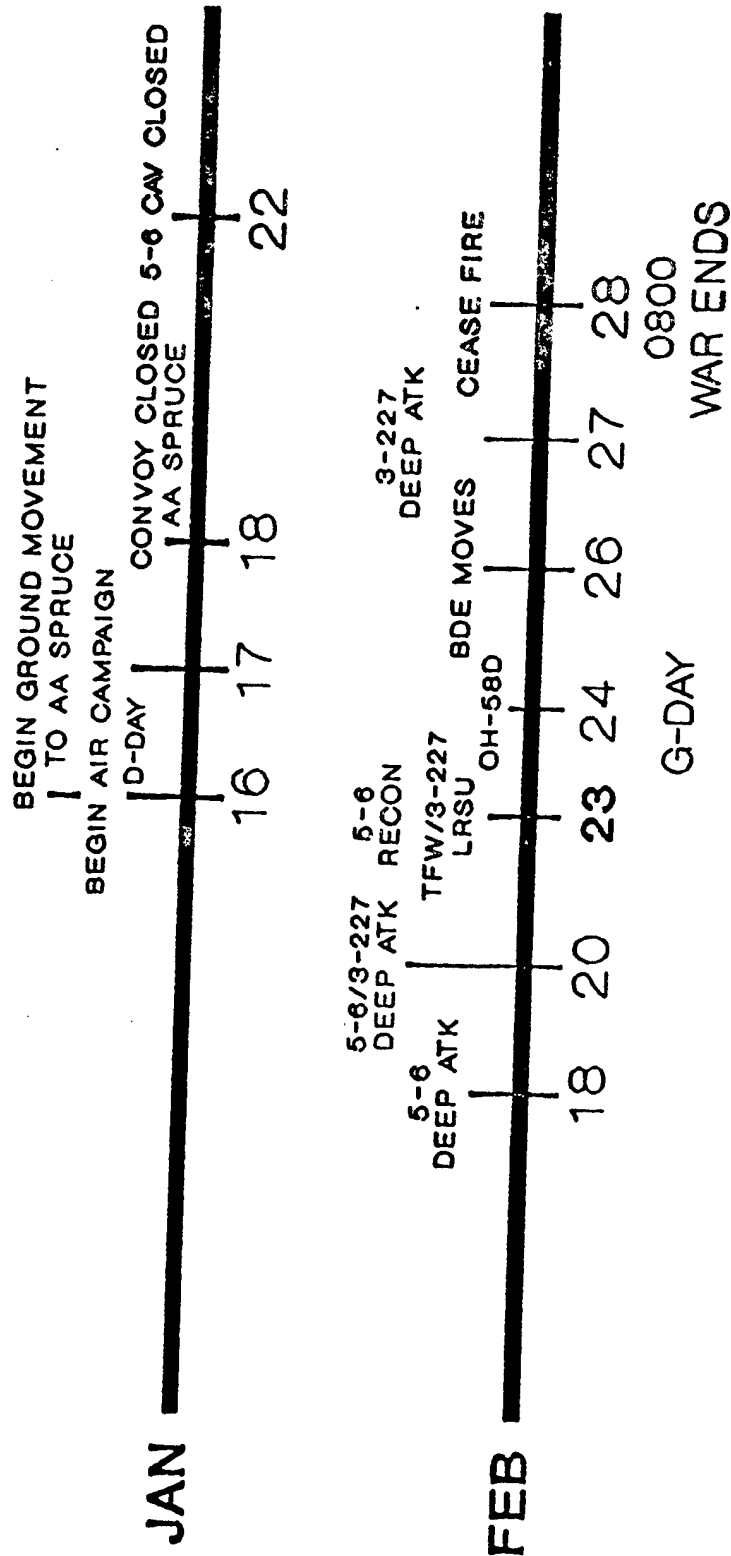


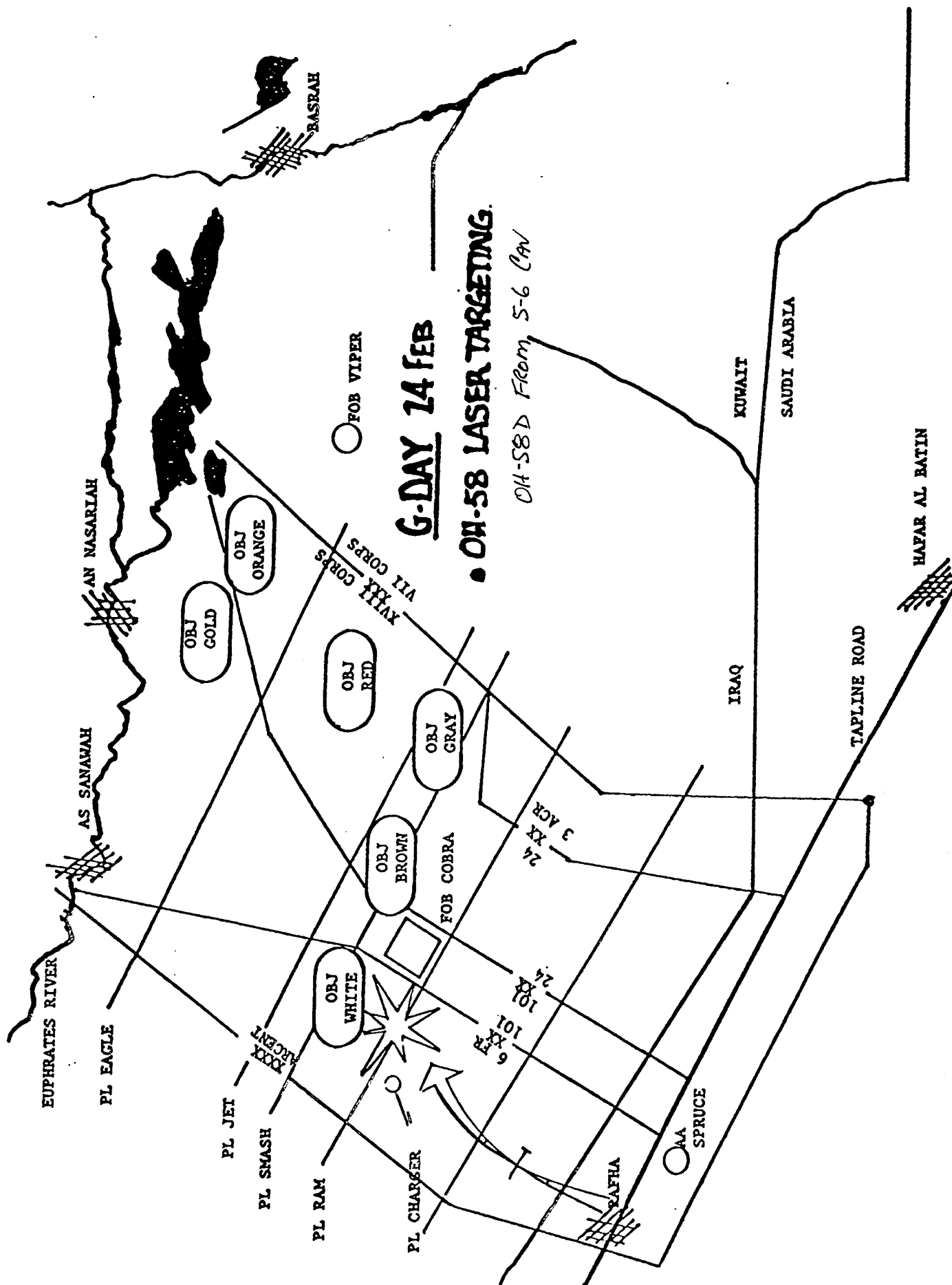


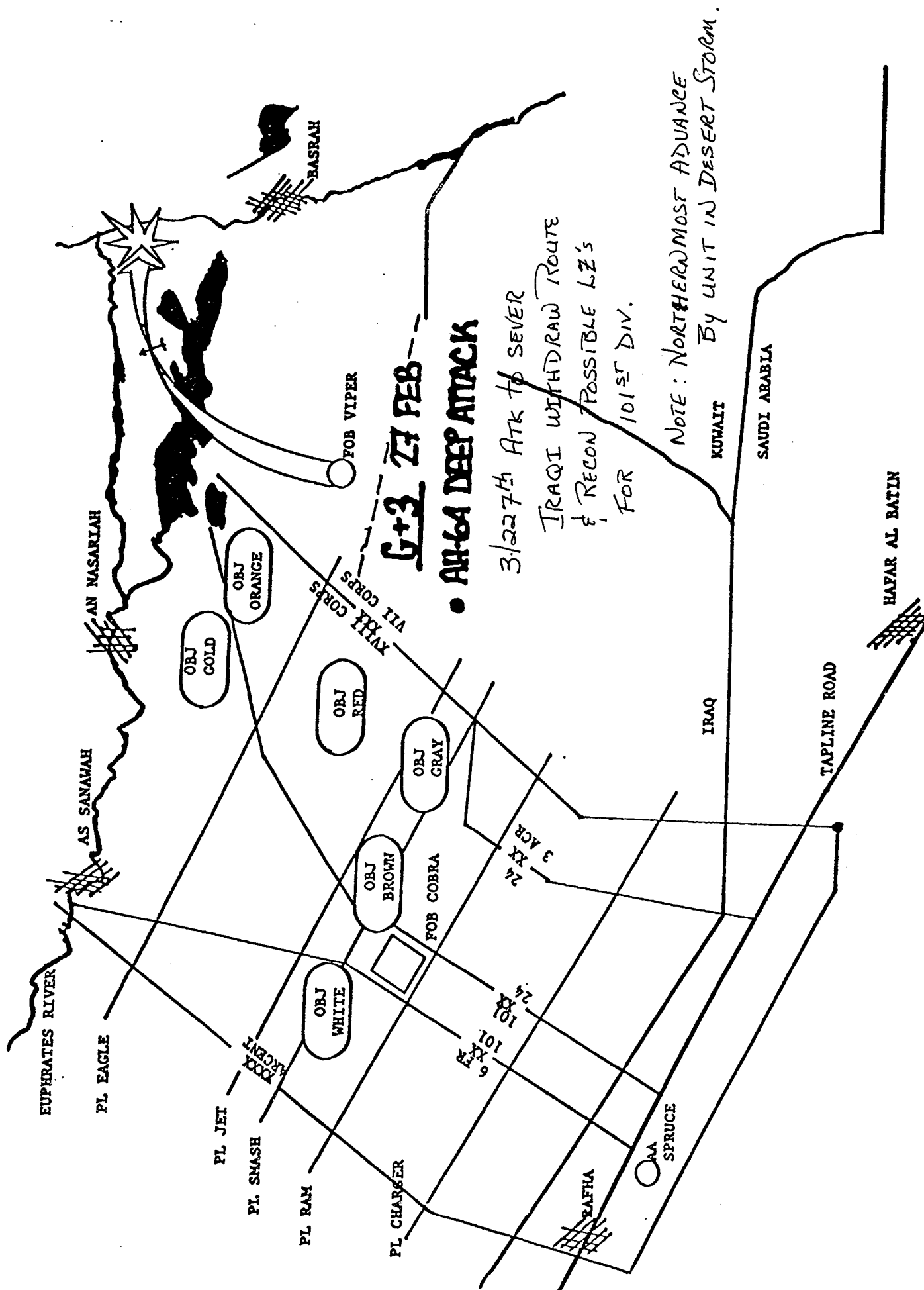
12TH AVIATION BRIGADE

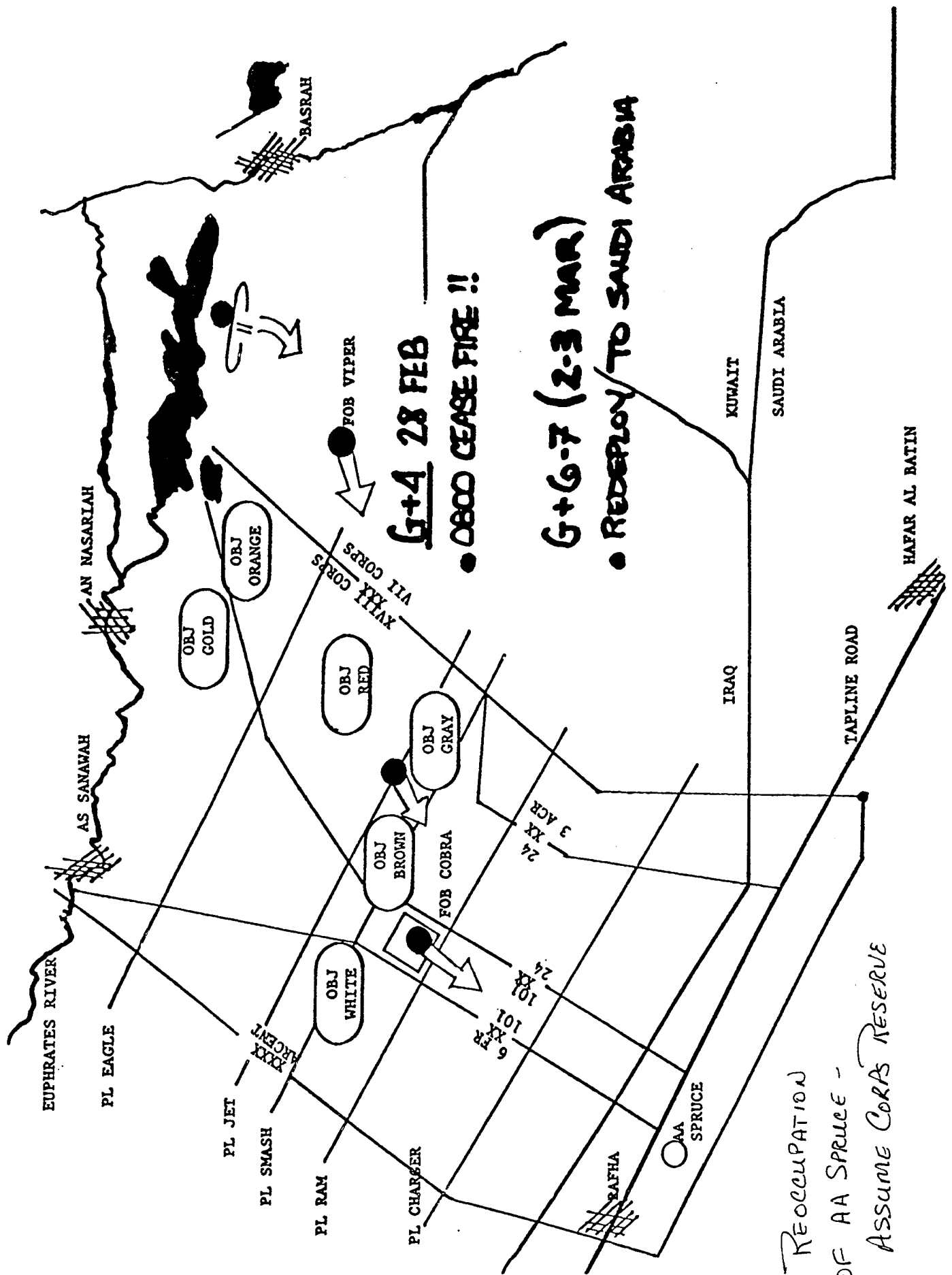


DESERT STORM TIMELINE









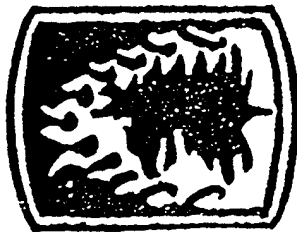
G+4 28 FEB

• OROO CEASE FIRE !!

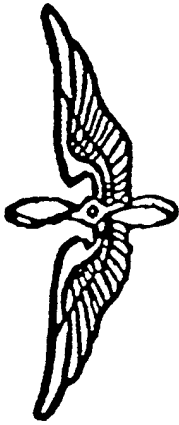
G+6-7 (2-3 MAR)

• REDEPLOY/ TO SAUDI ARABIA

*REOCCUPATION
OF AA SPRUCE -
ASSUME CORPS RESERVE*



12TH AVIATION BRIGADE



RESULTS

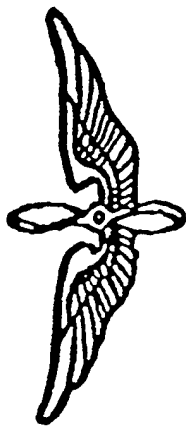
- DISORGANIZED/DEFEATED ENEMY
- GOVERNMENT LOSING POPULAR SUPPORT
- IRAQI FORCES ESCAPING TO BAGHDAD
- 12TH AVIATION BRIGADE-NO LOSSES!

REDEPLOYMENT

12 MAR 91 - ONGOING



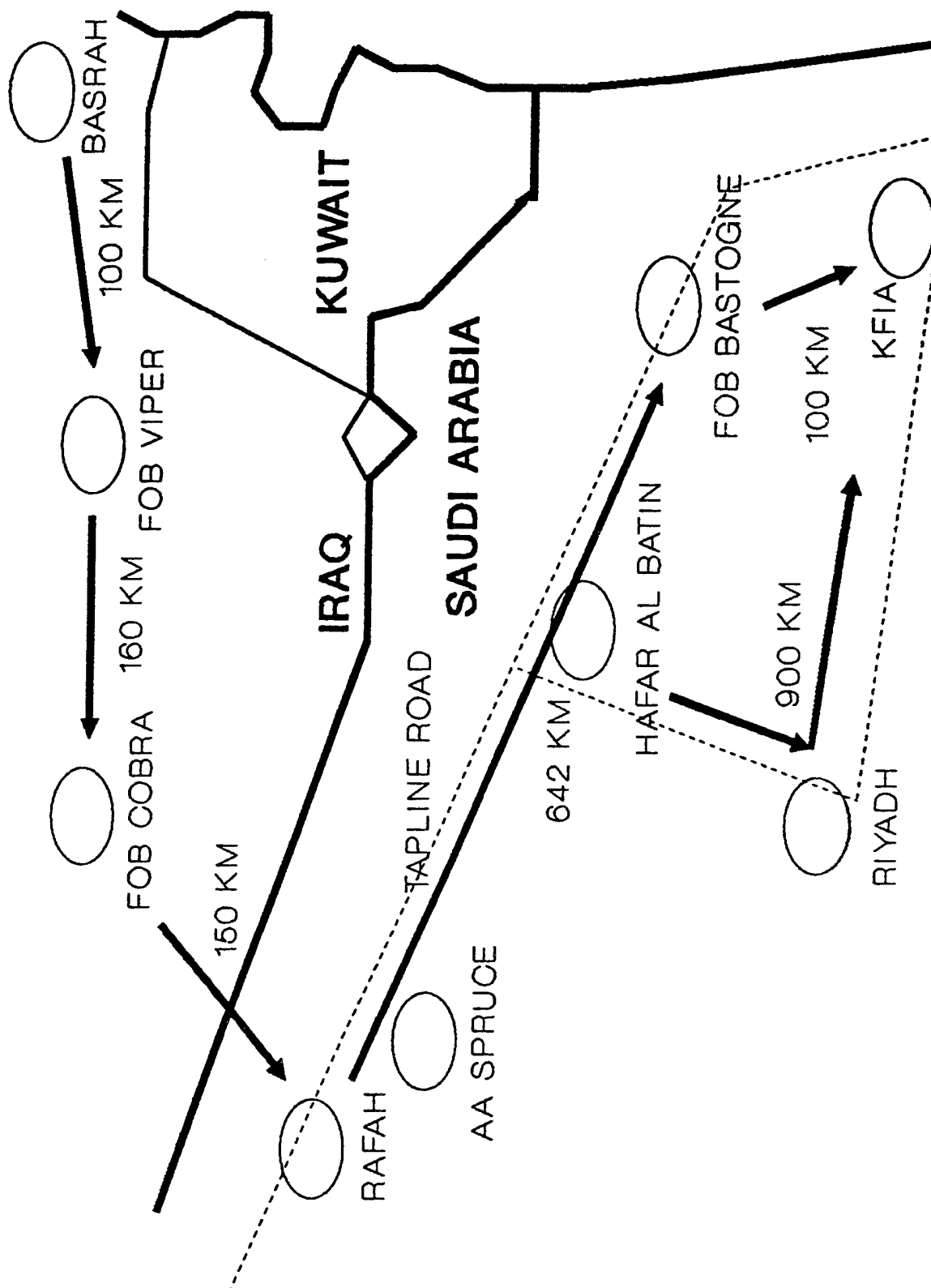
12TH AVIATION BRIGADE



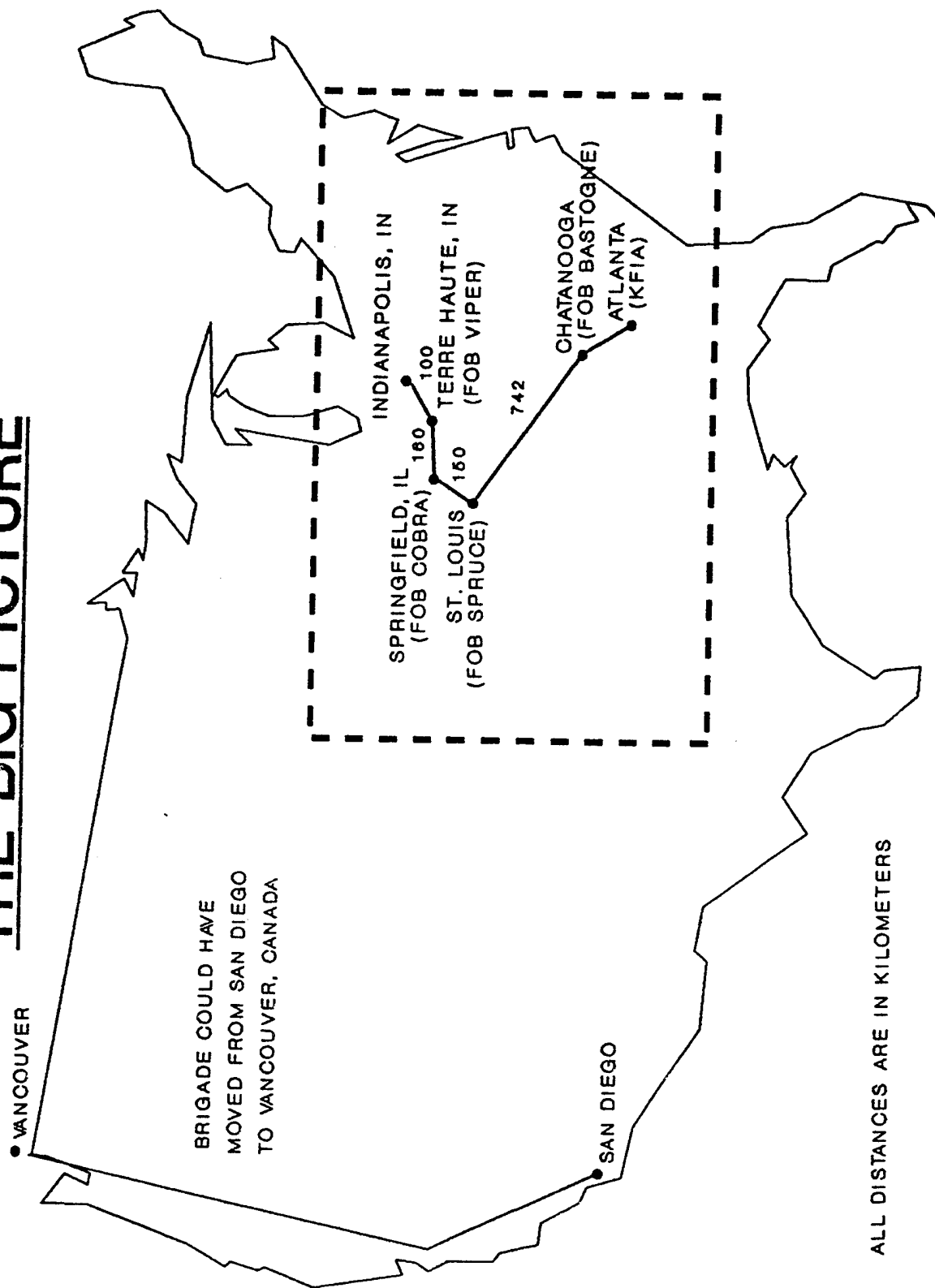
MISSION

ON ORDER, 12TH AVIATION BRIGADE REDEPLOYS AIRCRAFT, VEHICLES, AND EQUIPMENT FROM BREMERHAVEN, GE TO HOME STATIONS.

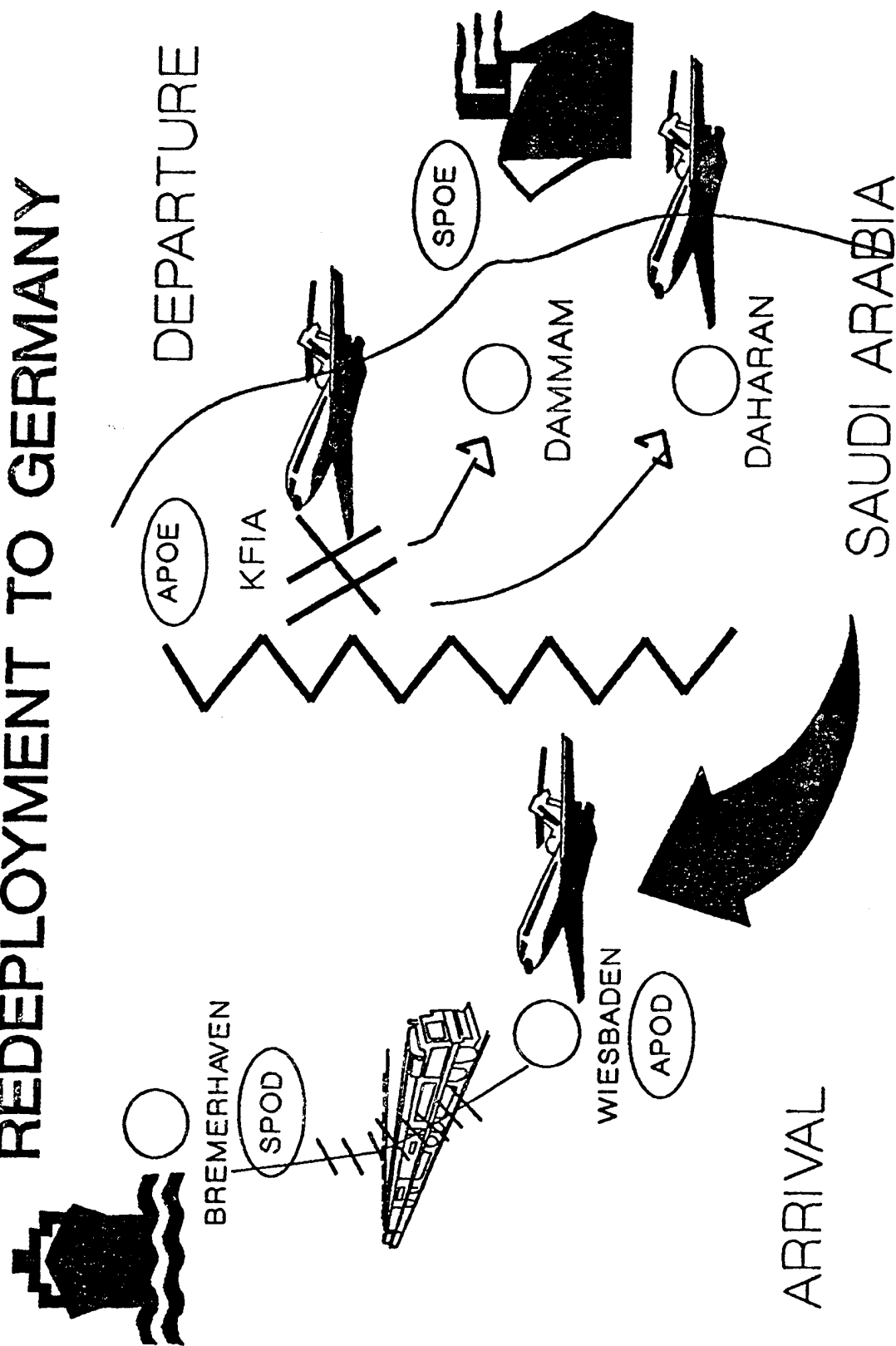
12TH AVN BDE REDEPLOYMENT

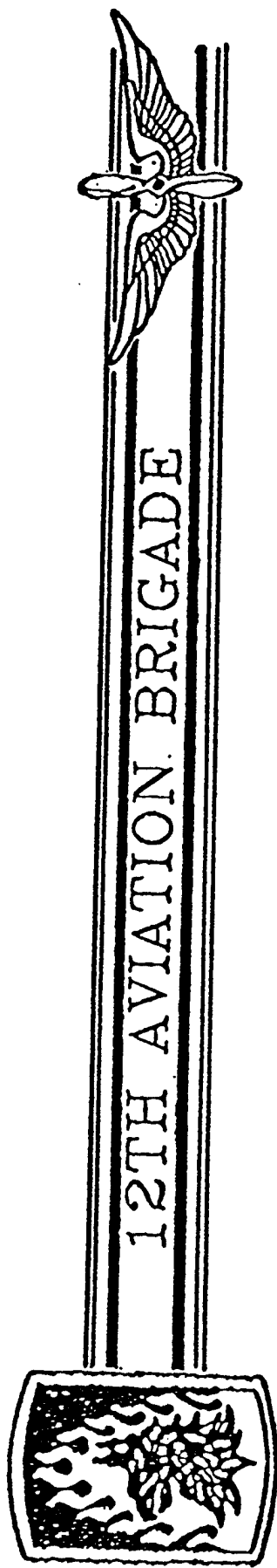


THE BIG PICTURE



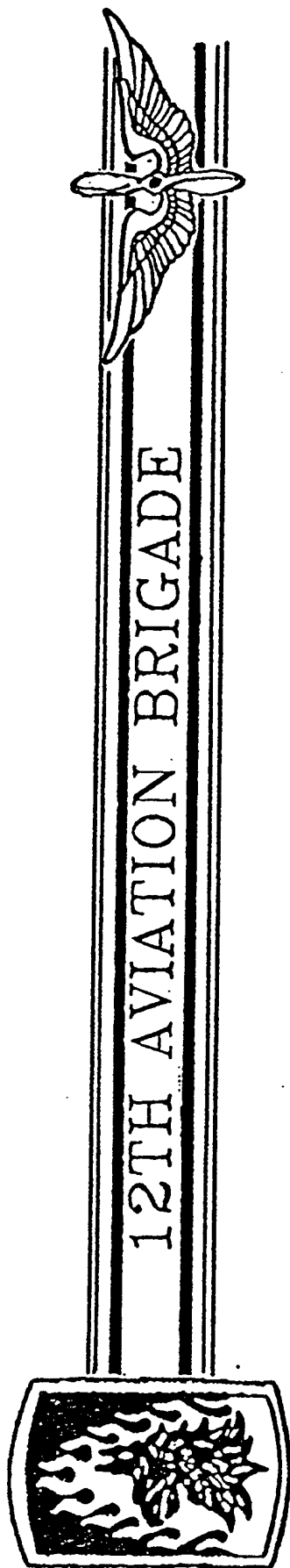
REDEPLOYMENT TO GERMANY





REDEPLOYMENT STATUS

- SOLDIERS
 - 1499 TO REDEPLOY WITH THE BRIGADE
 - 1481 HAVE RETURNED TO GERMANY
 - 18 ENROUTE AS SUPERCARGO ABOARD SHIPS
 - 59 ATTACHED TO 2-158 AVN (ARCENT CH-47 BN)

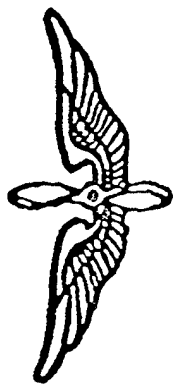


REDEPLOYMENT STATUS

- EQUIPMENT: ENROUTE TO BREMERHAVEN ABOARD TWO SHIPS
 - CAPE DOMINGO (RORO)
 - 103 HELICOPTERS
 - 532 ROLLING STOCK
 - 9 SUPERCARGO
 - MERCEADO ITALIA (RORO)
 - 190 ROLLING STOCK
 - 44 VEHICLES, B CO, 1ST MI BN
 - 12 SUPERCARGO (9 12TH AB, 3 1ST MI)



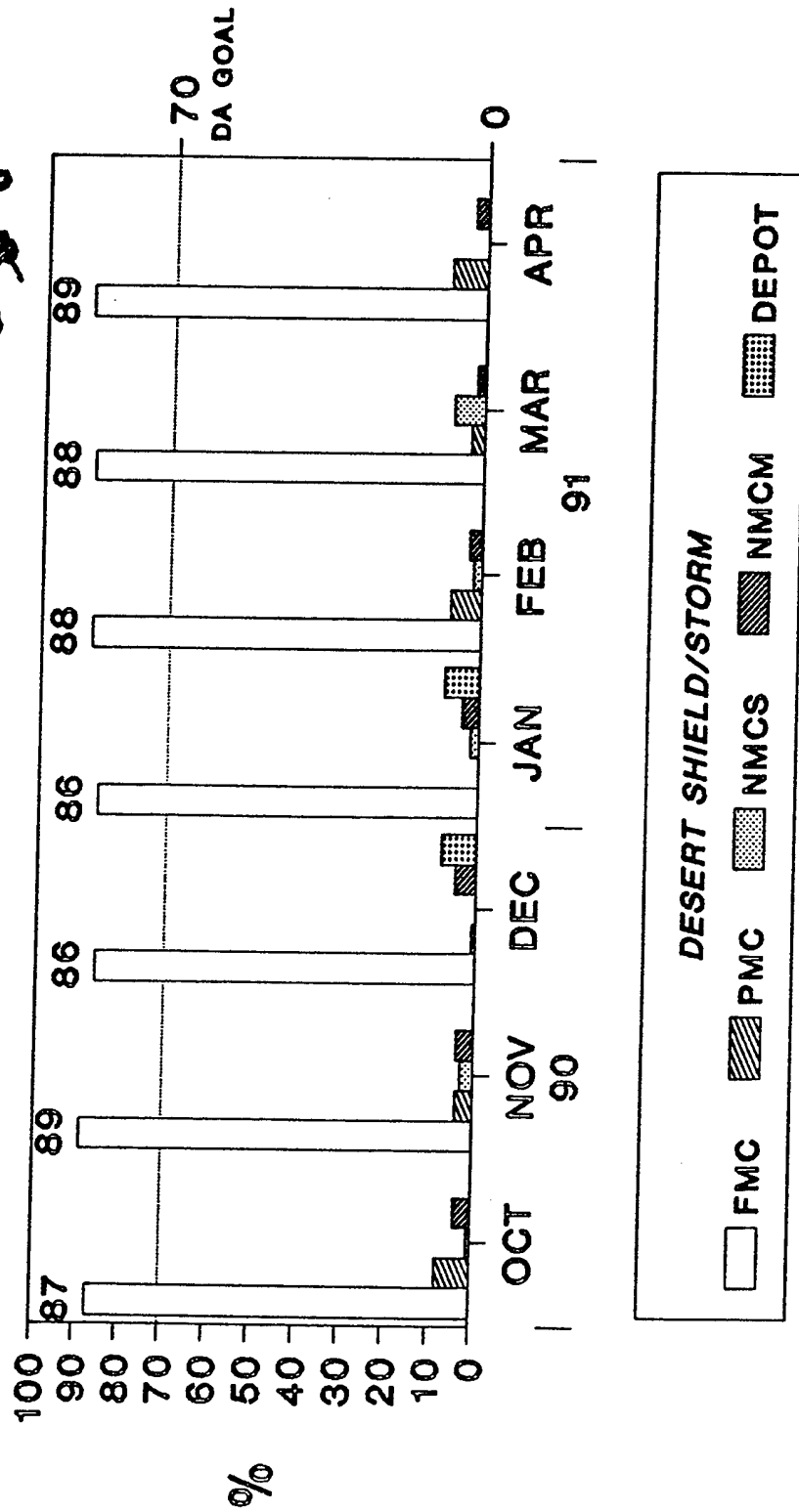
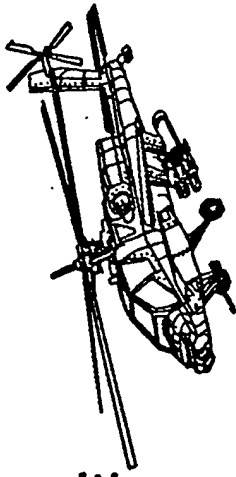
12TH AVIATION BRIGADE



CONCLUSIONS

- SHORT WAR ... LONG DEPLOYMENT
 - SOLDIER ADAPTABLE, DESERT HARDENED, TRAINED, PROFESSIONALLY PROUD
 - EQUIPMENT WORKED WELL
 - ARMY SUPPORT SYSTEMS WORKED
 - BRIGADE TRAINED TO FULL COMBAT STANDARDS...AND LEADERSHIP SEASONED
 - FAMILY SUPPORT SYSTEMS...COMBAT MULTIPLIER
- DOCTRINE IS SOUND. EDUCATION SYSTEM INFUSES IT INTO OFFICER/NCO CORPS
- SUPERB PLAN - WELL EXECUTED
- INNOVATION, FLEXIBILITY, DECENTRALIZATION
 - HALLMARK OF THE US ARMY--
- SAFETY PERMEATES THE ARMY

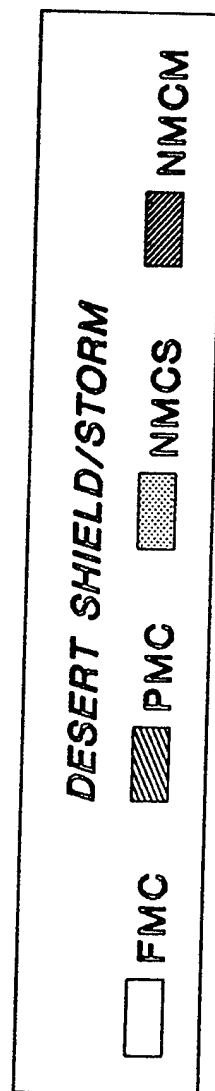
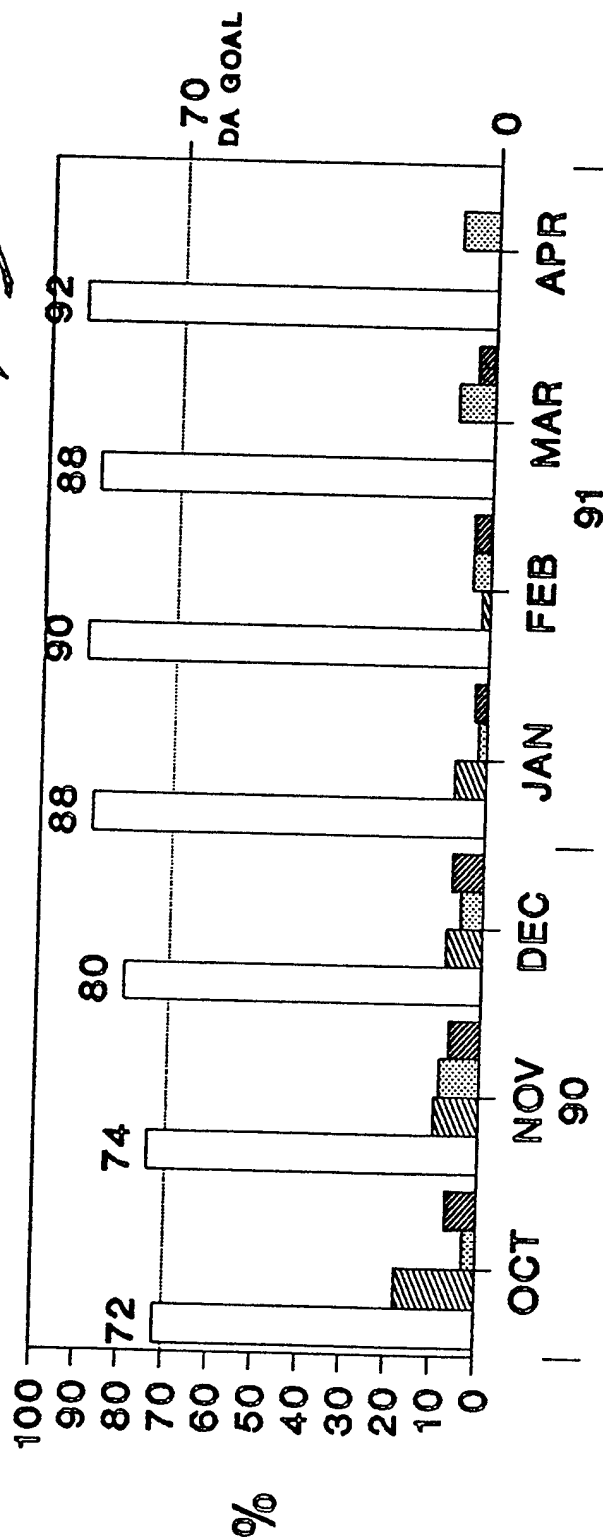
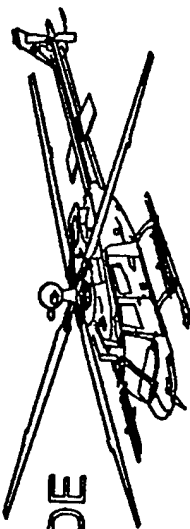
AH-64A "APACHE" 12th AVIATION BRIGADE



Density= 37
DA Goal PMC= 5% NMCS= 10 NMCM= 15

6-8 CAV- 19 3-227- 18

OH-58D "AHIP" 12th AVIATION BRIGADE

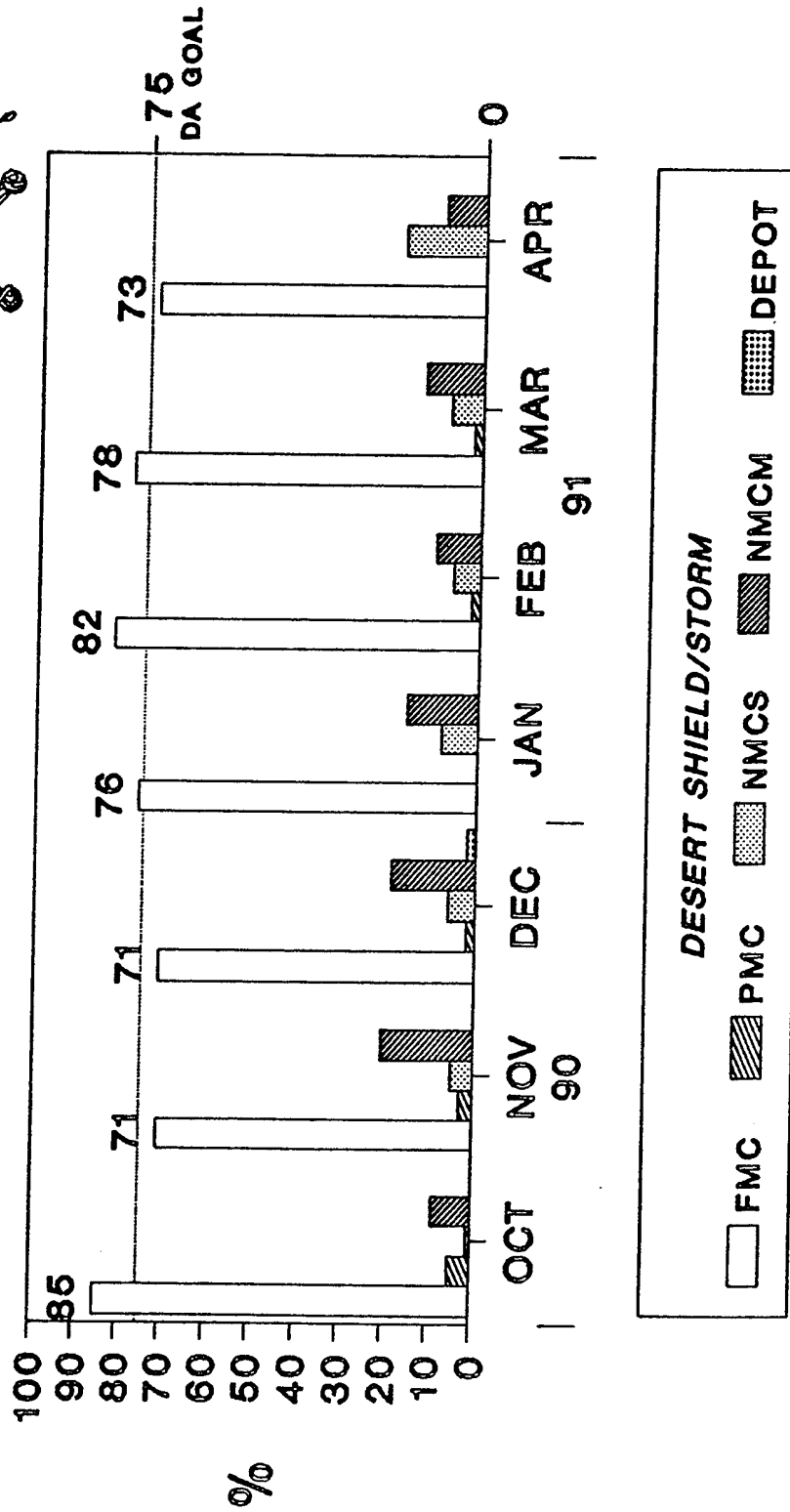
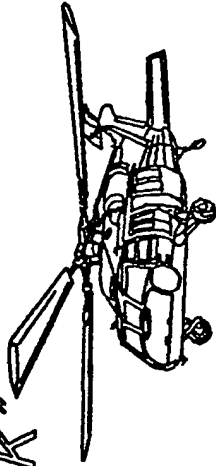


Density= 12

DA Goal PMC= 5% NMCS= 10% NMCM= 15%

D/5-158 Avn Regt/Attached to 5-6 Cav
6 OH-58D FURTHER OPEN TO
EACH ATTACK BATTALION

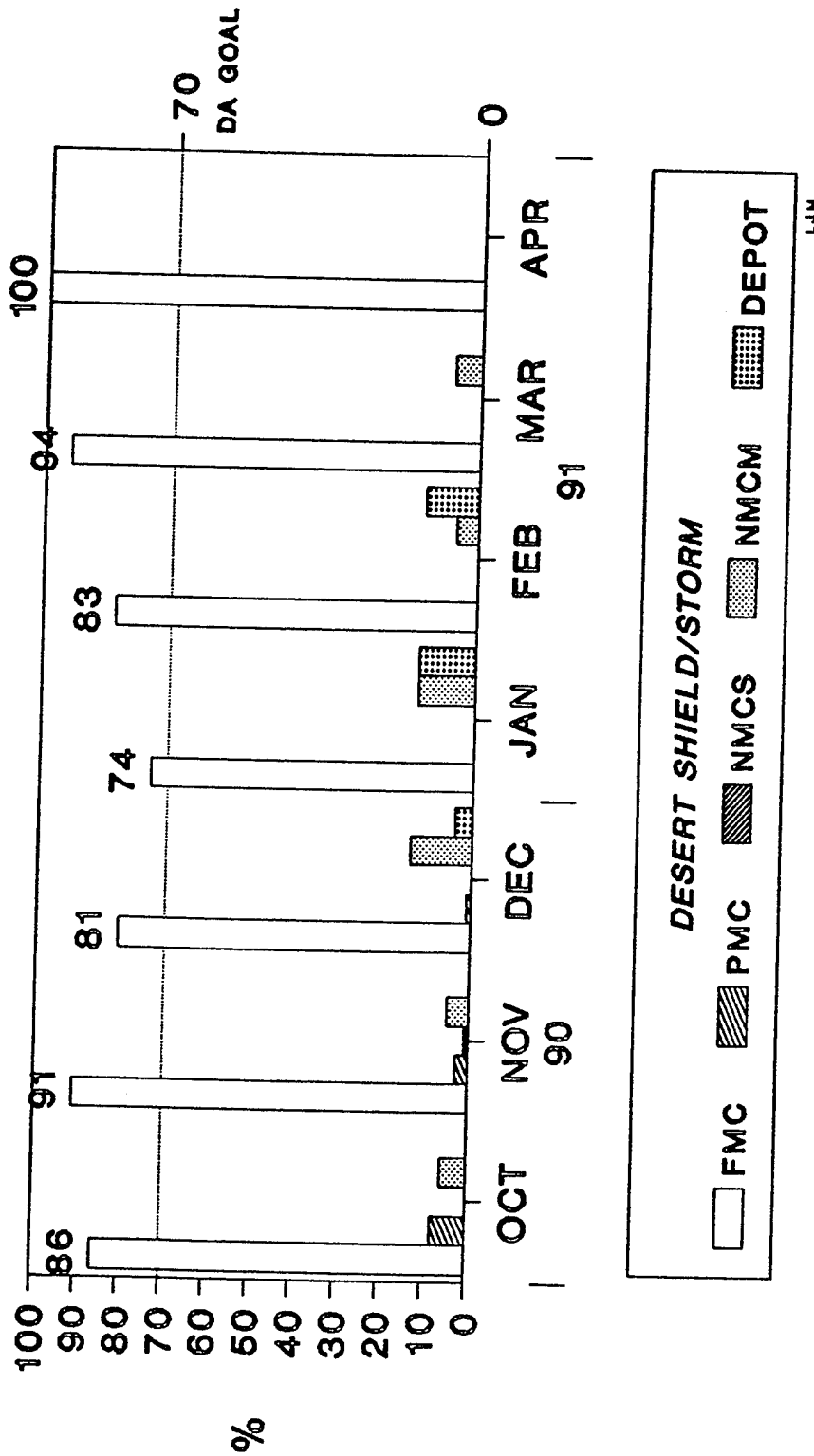
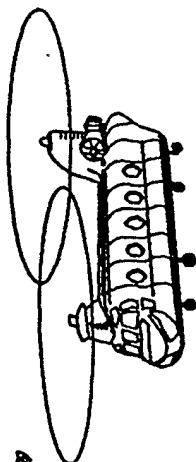
UH-60A "BLACK HAWK" 12th AVIATION BRIGADE



Density = 22
DA Goal PMC = 5% NMCS/NMCM = 10%

TFW = 16 5-6 CAV = 3 3-227 = 3

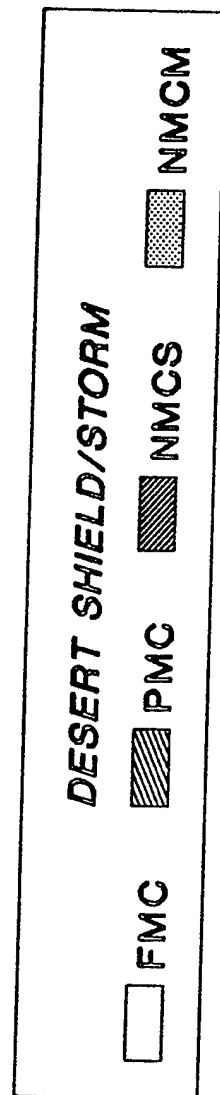
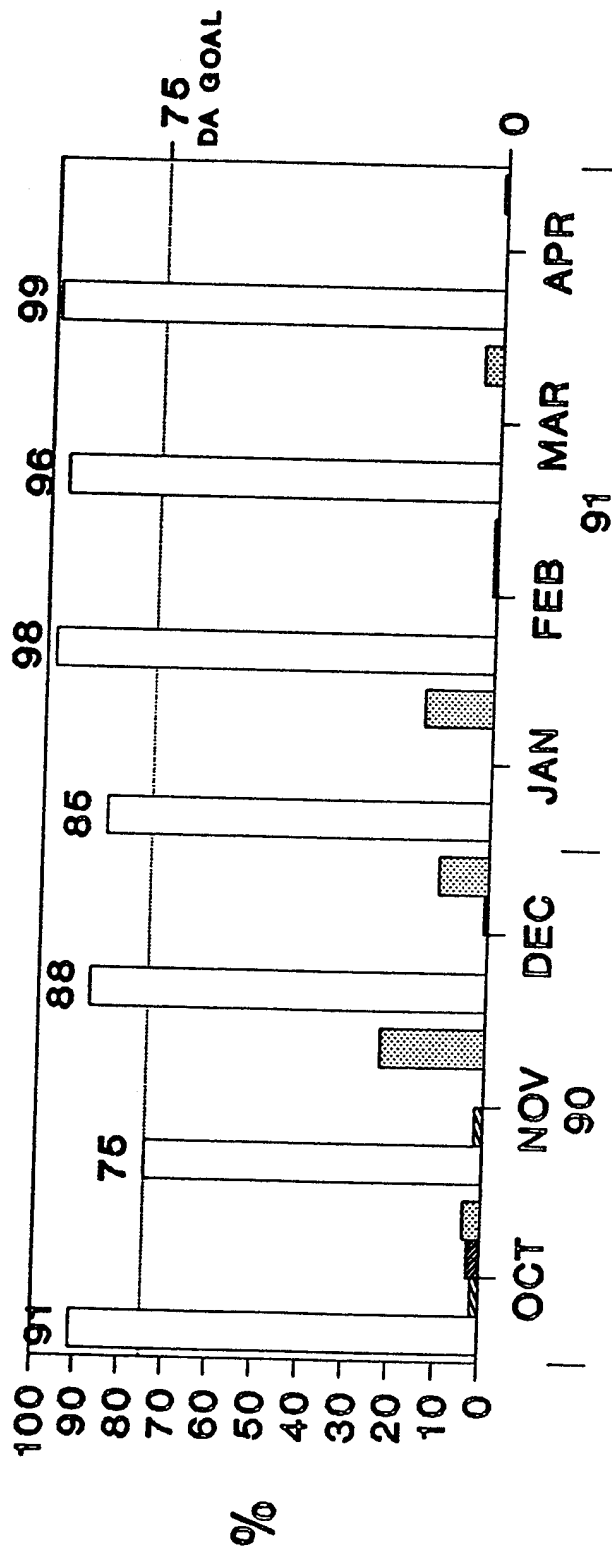
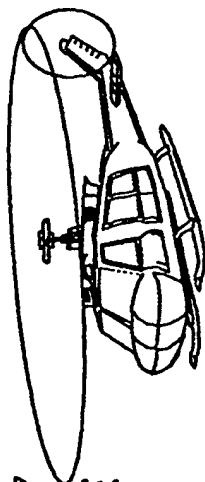
CH-47D "CHINOOK" 12th AVIATION BRIGADE



DA Goal FMC = 5% NMCS = 10% NMCM = 15%

B/6-158 Task Force Warrior

UH-1H "IROQUOIS" 12th AVIATION BRIGADE

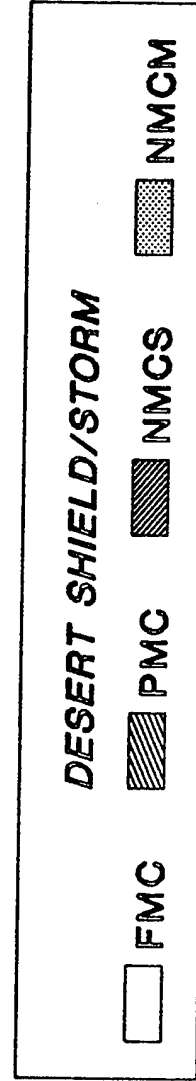
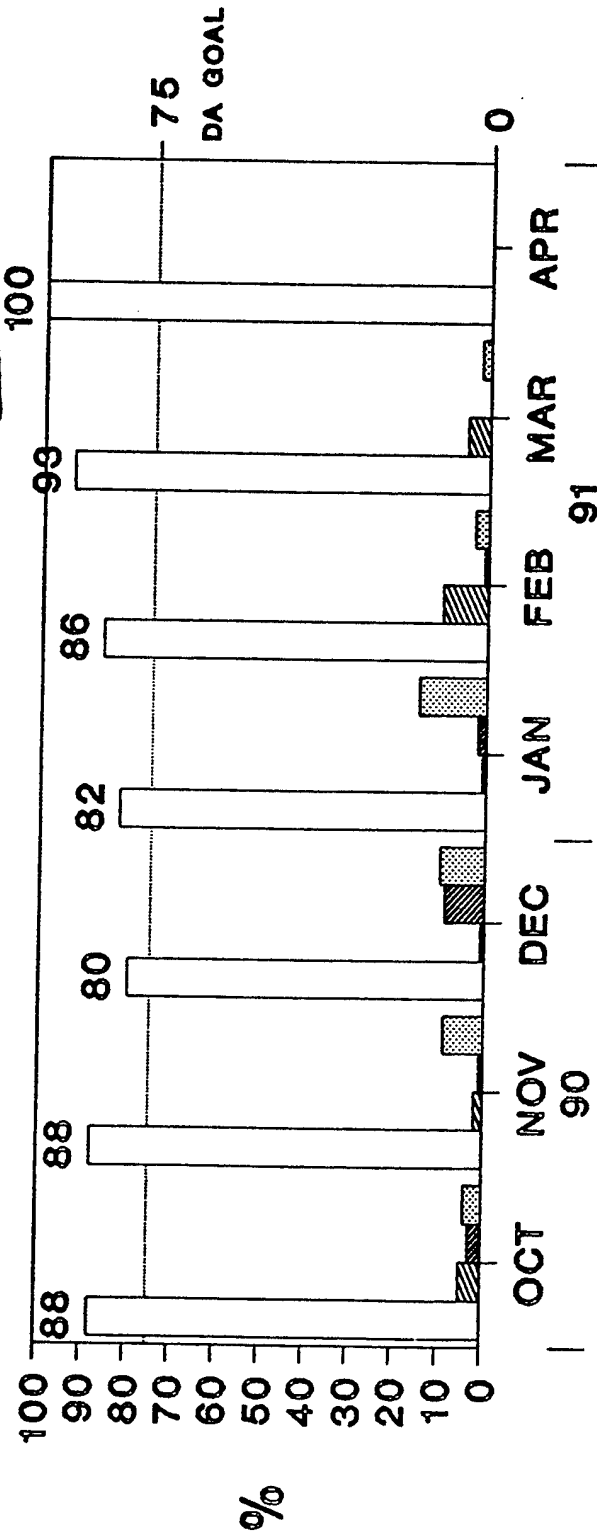
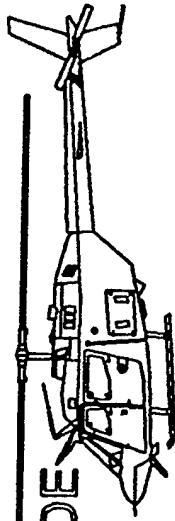


Density= 5
DA Goal FMC= 5% NMCS/NMCM= 10%

B/6-158 Avn Regt/Attached to TFW

OH-58C "KIOWA"

12th AVIATION BRIGADE



Density= 16

DA Goal PMC= 5% NMCS/NMCM= 10%

5-8 CAV= 8 3-227= 8

✓

Equipment Operational Readiness

12th Aviation Brigade

<u>END ITEM</u>	<u>DA STANDARD</u>	<u>EMC RATE</u>
AH-64A	70	88
OH-58D	70	83
CH-47D	70	87
UH-60A	75	77
UH-1H	75	90
OH-58C	75	88
VEHICLES	90	96

DESERT SHIELD/STORM

B-40



12TH AVIATION BRIGADE

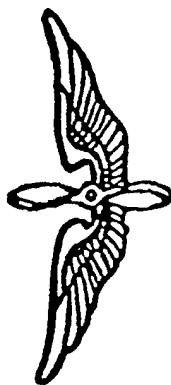


LESSONS LEARNED DOCTRINE

- DEEP ATTACK DOCTRINE WORKS
- JAAT OPERATIONS WERE EFFECTIVE
- NEED FOR TIMELY INTELLIGENCE
- AVIATION BRIGADES ARE MANEUVER BRIGADES
- OH-58Ds OPERATED VERY SUCCESSFULLY WITH AH-64s
- OH-58Cs HAD DIFFICULTY OPERATING WITH AH-64s



12TH AVIATION BRIGADE



LESSONS LEARNED TRAINING

- TRAINING APPROACH IN USAREUR IS SOUND
- NEED AERIAL GUNNERY RANGES THAT ALLOW COMPANY/BATTALION BATTLE DRILLS
 - MANEUVER OVER OPERATIONAL DISTANCES
 - FIRE ALL WEAPONS SYSTEMS
- OUT-OF-SECTOR TRAINING FOR 5-6 CAV
PREPARED UNIT FOR OPERATIONS DESERT
SHIELD/STORM

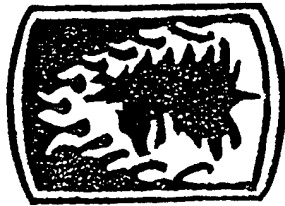


12TH AVIATION BRIGADE

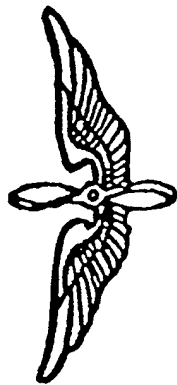


LESSONS LEARNED PERSONNEL

- CIVILIANS
 - 44 DEPLOYED WITH BRIGADE
 - UNTRAINED IN NBC AND FIELD SKILLS
 - ASSET TO BRIGADE
 - TEAM CHIEFS KEY TO SUCCESS
- POSTAL SUPPORT
 - SYSTEM BROKEN
 - SLOW MAIL SERVICE HAD ADVERSE IMPACT ON MORALE
 - V CORPS SOLUTION -- COURIER SERVICE



12TH AVIATION BRIGADE



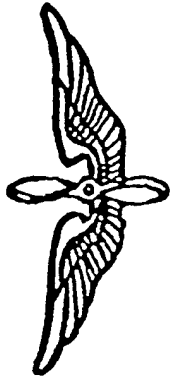
LESSONS LEARNED EQUIPMENT

- LACK OF LONG RANGE COMMUNICATIONS
 - NEED TACSAT
- GLOBAL POSITIONING SYSTEM
 - EXTREMELY RELIABLE AND CRITICAL IN DESERT OPERATIONS
- EXTENDED RANGE FUEL SYSTEM
 - ONE TANK ON EACH AH-64
 - 180 NM COMBAT RADIUS
- VEHICLES
 - HEMTT, HMMWV, AND M923 5-TON TRUCK PERFORMED SUPERBLY
 - CUCV, 2 1/2 TON TRUCK, AND OLDER 5-TON TRUCKS REQUIRED EXTENSIVE MAINTENANCE AND LACKED CROSS COUNTRY MOBILITY
- THE APACHE PROVED ITSELF IN COMBAT

B-44



12TH AVIATION BRIGADE



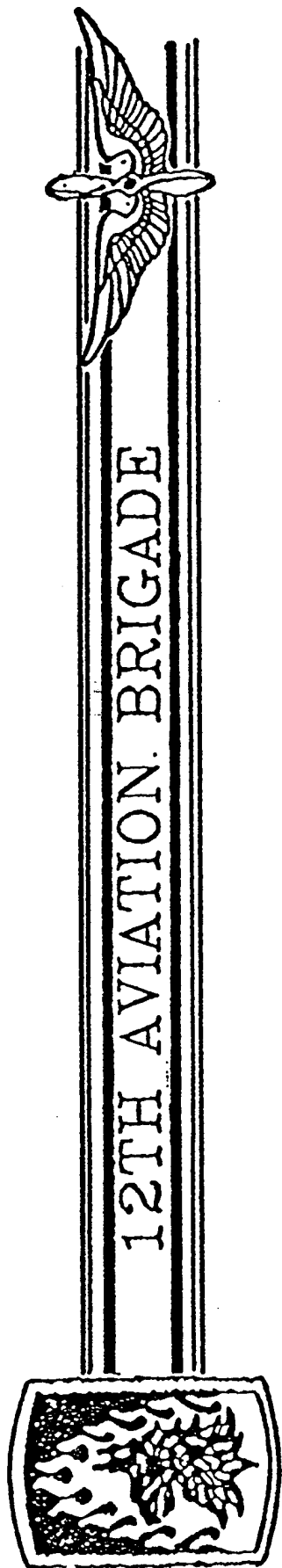
LESSONS LEARNED FORCE STRUCTURE

- TASK ORGANIZATION PROVIDED THE BRIGADE THE CAPABILITY TO OPERATE AND SUSTAIN ITSELF IN A MOBILE, ARMORED WARFARE ENVIRONMENT
- VALIDATED THE NEED FOR A FSE WITHIN THE AVIATION BRIGADE
- IDENTIFIED THE REQUIREMENT FOR A FORWARD SUPPORT BATTALION FOR THE CORPS AVIATION BRIGADE
- AH-64 BATTALION PERSONNEL PLUS-UP WAS VERY EFFECTIVE

WHY WE WERE SUCCESSFUL

- FAMILY SUPPORT IN GERMANY
- ACS STAFF ASSISTANCE
- UNIT FAMILY SUPPORT GROUPS
- COMMUNITY SERVICES PROVIDED
- COSCOM/V CORPS/USAREUR ASSISTANCE
- STRONG REAR DETACHMENT

GREAT JOB!
THANKS FROM THE 12AB FAMILY!



"AIR ATTACK"

B-47

ANNEX C.. 1ST IMPRESSIONS

OPERATION DESERT SHIELD

THE FIRST 90 DAYS

- * ADMINISTRATIVE STATISTICS
 - 6 DISCHARGES
 - 8 EMERGENCY LEAVES
 - 4 SICKCALL (PER DAY)
 - 4 REDEPLOYED SOLDIERS
 - 20 FINANCE ACTIONS (PER MONTH)
 - 7 MAIL BAGS (PER DAY)
 - 5 NEW ARRIVALS (BABIES)
- * ESTIMATED MEAL DISTRIBUTION
 - MRE 65%
 - T-RATION 28%
 - A-RATION 2%
 - B-RATION 5%
- * PR&C FUNDS - \$22,000

OPERATION DESERT SHIELD

THE FIRST 90 DAYS (CONT)

* TRAINING			
- HOURS FLOWN - AH-64	1380	TOTAL	PER A/C
OH-58C	681		76
OH-58D	375		85
UH-60	262		62
			87
- MILES DRIVEN - 95,000 (FOR 79 VEHICLES)			
* MAINTENANCE			
- GROUND EQUIPMENT OR RATE			93%
- AVIATION OR RATES: AH-64			73%
OH-58C			78%
UH-60			85%
* SAFETY			

LESSONS LEARNED OVERVIEW

- * DEPLOYMENT - RAIL, AIR, SEA
 - TACTICAL LOAD
 - SECURITY
 - MISSION TYPE ORDERS
 - SELF-SUFFICIENCY
 - LOGMARS INACCURATE

OPERATIONS & INTELLIGENCE

- INITIAL CONPLAN
- FRIENDLY SITUATION
- THREATCON LEVELS
- INTEL REPORTS
- SIGNALS/ALERT DRILLS
- AMMUNITION

TRAINING

- WATCH OPTEMPO (2698 AIR/95000 GRD)
- NAVIGATION/MOVEMENT
- COMMUNICATIONS
- STAFF ESTIMATES
- NBC-DELIBERATE/HASTY DECON
- REPORTS PROCEDURES
- DRIVERS
- TROOP LEADING PROCEDURES
- ALERT DRILLS

SAFETY

- RISK ANALYSIS
- PORSCHE 911 VS. 18 WHEELER
- SAUDI DRIVERS
- WATCH SPEED
- NIGHT DRIVING
- "PRIDE IS A COMPETITOR TO PROFESSIONALISM
IF NOT CONTROLLED"

PERSONNEL

- POM-40% OF FINANCE ACTIONS FAILED
- MORALE ISSUES-MAIL, NEWS OF ANY KIND, VCR TAPES, OPS
- "ANY SOLDIER MAIL"
- SINGLE PARENTS
- EMERGENCY LEAVES
- REENLISTMENT INFO NOT AVAILABLE
- RECORDS
- PUBLICATIONS
- PROFILES/FITNESS
- BUDDY SYSTEM

MEDICAL

- FIELD SANITATION
- NBC/MEDICAL CASUALTY PLAN
- MEDEVAC
- MALARIA PILLS
- MOST PREVALENT SICKNESS-UPPER RESPIRATORY
- EVACUATION TRACKING
- *COMBAT LIFESAVER TRAINING*

LOGISTICS

- CLASS I - MEAL DISTRIBUTION: 65% MRE, 28% T-RATIONS
- PR&C FUNDS - 22,000
- SSSC NOT AVAILABLE
- CLASS IV - SHORT SUPPLY
- DODDAC IDENTITY
- OCIE - UNIT RESPONSIBILITY
- DON'T EAT THE LETTUCE
- AMMUNITION
- LIME

MAINTENANCE - EQUIPMENT READINESS

- PMCS IS KEY
- TIRES
- RADIOS/COMSEC
- EQUIPMENT COVERS
- HUMMV (STARTERS,REGULATORS,SEALS,BATTERIES,INJECTORS)
- CUCV (ENGINES,U-JOINTS,TRANSFERS,BATTERIES)
- M35A2 (TIRES,CLUTCH)
- NBC
- NIGHT FIGHTING EQUIPMENT
- PUBLICATIONS
- PLL / ASL

LIFE SUPPORT

- SHOWERS
- FOOD
- GENERAL APPEARANCE
- FIELD SANITATION
- SECURITY

DESERT ENVIRONMENT

- MOBILITY-TAKES LONGER, STREAMLINE LOADS
- IR CHEMLITES/STROBES
- NAVIGATION
- CONVOY MOVEMENT
- VISUAL ILLUSIONS-NO CONTRAST,DISTANCE PERCEPTION
- PASSAGE POINT NEAR & FAR RECOGNITION
- VEHICLE SURVIVAL KIT
- GPS-POSITION LOCATOR
- "THE NIGHT LIFE"

STAFF KEYS

S1 - PERSONNEL ACCOUNTABILITY

- MANIFEST
- ADPE

S2 - MAP MANAGEMENT

- THREAT ANALYSIS EARLY-24 HOUR STAFFING
- REMBASS
- OPSEC
- KNOW YOUR ENEMY

S3 - FRIENDLY SITUATION VAGUE

- ORDERS PROCESS-TOC BATTLE DRILL
- HAVE A PLAN-LOST COMMO
- REPORTS

S4 - AMMUNITION,TRANSPORTATION,HANDLING,ACCOUNTABILITY

STAFF KEYS (CONT)

COMMO - REDUNDANCY
- FREQUENCY SATURATION
- OH-58D TACFIRE & LASER CODES

JAG - GENEVA CONVENTION/ROE

FAMILY SUPPORT MUSTS

- KEEP INFORMATION FLOWING
- WATCH OPSEC
- TAKE CARE OF ATTACHMENTS
- MAIL
- PHONES

RECOMMENDATIONS

- KEEP IT SIMPLE
- WATCH OPTEMPO-TRAIN TO STANDARD
- THINK SECURITY
- LEARN TO MOVE & COMMUNICATE IN THE DESERT AT NIGHT
- DISCIPLINE/SELF-DISCIPLINE IS KEY TO SUCCESS

AS PUBLISHED IN HANAU HERALD,
HANAU, GERMANY, 20 SEP 1990

Thanks to you, we are prepared to do the mission

The 3rd Bn., 227th Aviation Battalion and our attached units are ready for deployment and support of Operation Desert Shield. Our unit is one of several in Germany that for the first time in years will perform duty outside the boundaries of Europe. The battalion is ready in great part due to a tremendous display of teamwork and support from military units, our community, and our families.

Training remains the cornerstone of our readiness. The rigorous training that our soldiers have executed—from the beginnings at Fort Hood to the demanding exercises in the Spearhead Division—has paid off in a high level of combat readiness. We owe thanks to the Army leaders for appropriately maintaining a training focus.

We'd like to acknowledge the units within the Hanau MILCOM, the Combat Aviation Brigade, the Division, and the Corps for the tremendous support given during our preparations for deployment. It was

a great team effort; we all shared in this mission accomplishment. Our earnest thanks go out to the many units that stepped in to support and the professional soldiers who selflessly dedicated their time and talents to our preparation and movement.

The Hanau Military Community—inspired by excellence, and dedicated to the quality life for our families—prevailed as a key member of the team. Community agencies and the military, civilian, and German people who are the lifeblood of our community collectively responded to the needs of the battalion and soldiers' families with an outpouring of services, supplies, and special activities. Your efforts made for a smooth transition and prepared family members for the pending separation. Thanks Hanau MILCOM; you are truly a community of winners!

We are ready and look to our next mission because we leave behind a strong family support network. Our families provide us great strength both at

home and whenever we're away. It's important that soldiers know their families are prepared to cope with their absence. Our spouses and others in the military community have come together to further strengthen established support groups.

The professionalism of our soldiers and units, the excellence of our military community, and the dedication and love of our families sends us off prepared to do the mission that our country has asked us to perform. Thanks from the men and women of the 3/227th Aviation Attack Battalion.

SEEK, STRIKE, DESTROY!



ANTHONY R. JONES
LTC, AV
Commanding

SOME THOUGHTS FROM THE DESERT

(For Spearhead and Hanau)

By Lt. Col. Anthony R. Jones

Commander, 3-227 AHB

To the soldiers of the Spearhead Division, we bid you nothing but the best. We take great pride in representing our Division and our country with the forward deployed forces.

I am sure from the many stories and articles you have read and heard, you are still wondering what it is really like in Saudi Arabia. From a soldier's standpoint, I would like to give you my initial impressions.

Beginning with our deployment through our arrival in country, all soldiers had many apprehensions. The unknowns grow less important if the unit has developed cohesiveness, mental and physical fitness, and focuses on the mission. What is unknown may not be important.

Soldiers who have neglected their personal fitness and lack self-discipline do not adjust well to the desert climate nor in mental preparation in transitioning to war.

-more-

DRAFT OF ARTICLE SENT
BACK TO GERMANY FOR PUBLISHING
IN 3rd ARMOR DIVISION MAGAZINE
"THE SPEARHEAD"
NOVEMBER 1990.

THOUGHTS 2-2-2

Your leadership, I'm sure, has continued to refine standard operating procedures. Those procedures are routine actions or methods of doing business. If your unit has trouble with the routine, you will certainly lose your flexibility and struggle with any new environment.

Standards of performance do not change. If you have trained to standard, established goals and objectives, and practice your essential mission tasks, you will find that you are better prepared for war than you realize. However, leaders must recognize that pride is a competitor to professionalism if not in control. The benefits of demanding training exercises such as Reforger, Gunner Density, CMTC, and Warfighter are only realized when faced with the reality of war. I feel that our soldiers are prepared and confident because of the past 18 months of realistic training, continued challenges to meet or exceed standards, and the cohesive teamwork built through weathering the good and the bad -- all the rewards of being a professional soldier.

NCO leadership and decisiveness by commanders is a must. When in charge, take charge. Soldiers deserve a chain of command that is technically and tactically competent, makes decisions, communicates with soldiers, issues mission type orders, and cares for their soldiers. Anything less adversely affects the morale and readiness of a unit.

Training and preparation for war does not end with deployment. Collective and individual METL tasks take on a new perspective for many, finally realizing the connectivity of mission focus from individual through unit levels.

Security, maintenance, and readiness of individual and unit equipment is paramount. Work hard on the equipment you will take to war. Don't put off till tomorrow what should be accomplished now.

Our deployed equipment and personnel are what we will fight with. The desert heat, wind and sand requires daily preventive maintenance and protection of our equipment. Personal hygiene and field sanitation are also a must. For those who perform guard duty with live ammunition, the reality of protecting equipment and fellow soldiers sets in quickly.

-more-

After an intense daily schedule of training, maintenance and other daily requirements, each soldier looks forward to mail call. Information and news from home have great impact on morale. In addition, many letters from the United States addressed to "Any Soldier in Saudi Arabia" strengthen the resolution of each soldier to represent our nation and its strategic goals. The patriotism of the younger and older generations of America seem to be bonded by our deployment.

Many of these thoughts seem philosophical. However, the reality set in after our arrival in country that we have trained continuously for this opportunity to represent our country and to fight for freedom. Even though a shot may never be fired, valuable lessons and experience have been gained by all our soldiers.

Seek, Strike, and Destroy!

First Union National Bank
Charlotte, North Carolina
Capital Management Group
Two First Union Center, Suite 2-110
Charlotte, North Carolina 28226-1110
704-374-8482



November 5, 1990

Dear Troops:

Over the next few days you will be receiving packages containing playing cards, lollipops, beach balls, frisbees, and Hugo Hornets. We hope these items will help make your stay in the desert a little more bearable. (Hugo is the mascot of our professional basketball team, the Charlotte Hornets. He's been a better mascot than the team has been. Maybe he'll help add a little "sting to your wing".)

We are the Operations unit for the Capital Management Group (Trust Department) at First Union National Bank. We got these things together to show our gratitude and support for the job you are doing.

Hope you're home soon!

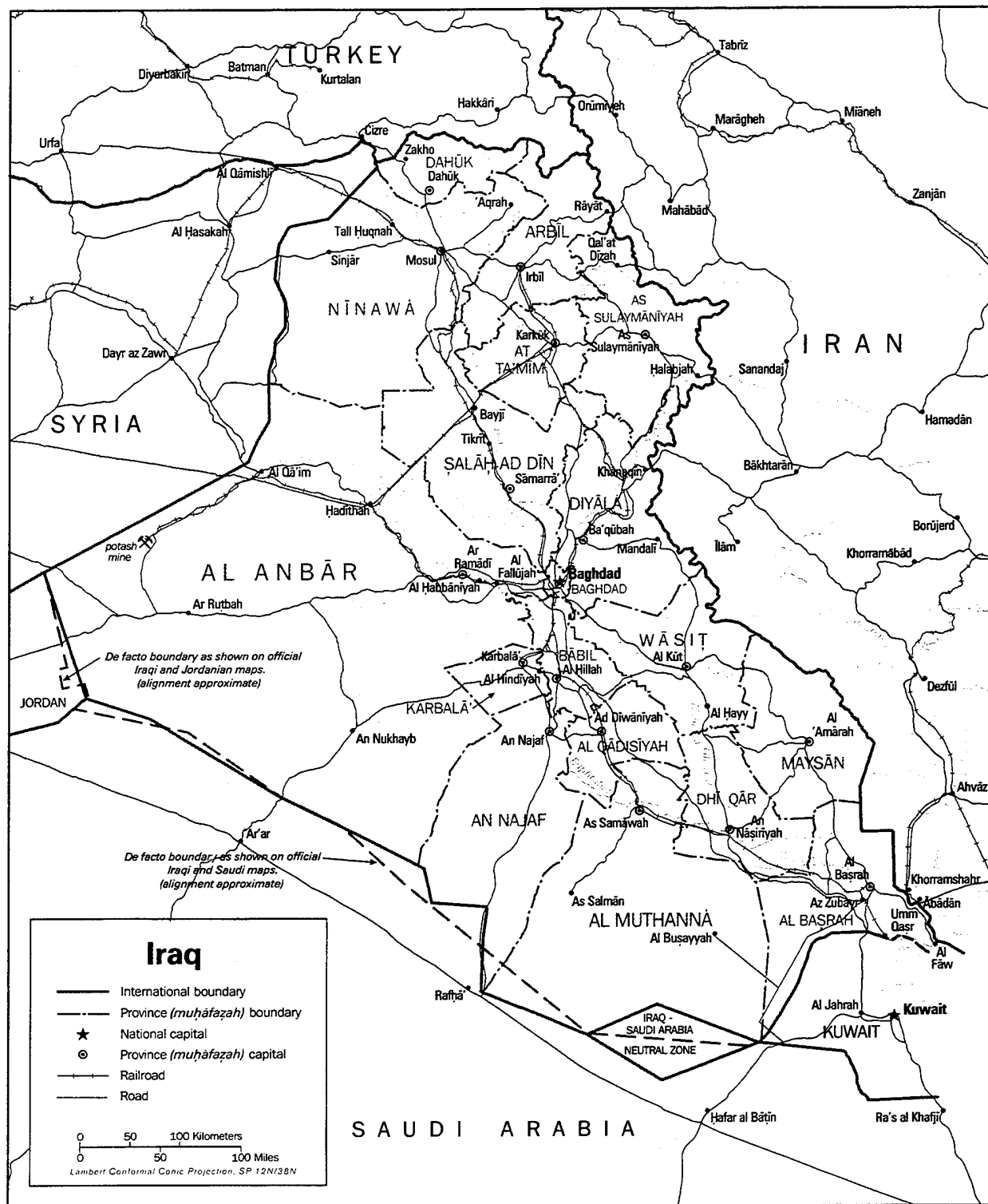
EXAMPLE OF LETTER FROM
SUPPORTERS IN UNITED STATES.
THIS LETTER WAS ENCLOSED IN
BOX OF GIFTS FOR SOLDIERS --
ONE OF MANY FROM
FIRST UNION NATIONAL BANK.

ANNEX D-REFERENCE MAPS

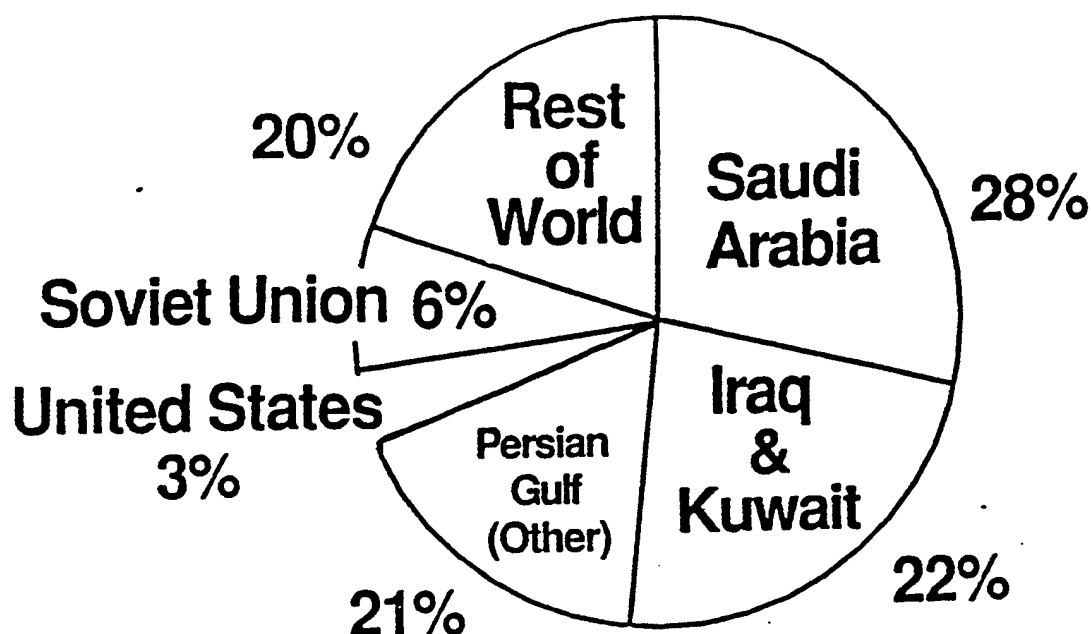
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Base 801701 (A05796) 3-91



WORLDWIDE PROVEN OIL RESERVES



COUNTRIES WITH FORCES IN PLACE SUPPORTING OPERATION DESERT SHIELD

Argentina	Germany	Pakistan
Australia	Greece	Qatar
Bahrain	Italy	Saudi Arabia
Bangladesh	Kuwait	Senegal
Belgium	Morocco	Spain
Canada	Netherlands	Syria
Denmark	Niger	UAE
Egypt	Norway	United Kingdom
France	Oman	